

IENCES® G-Biosciences, St Louis, MO, USA | 1-800-628-7730 | 1-314-991-6034 | technical@GBiosciences.com

A Geno Technology, Inc. (USA) brand name

# **Safety Data Sheet**

Cat. # BAQ072

## Nitrite/ Nitrate Determination Assay

Size: 100 tests (96 well format)





Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| SECTION 1: Identification of the su  | ubstance/mixture and of the company/undertaking   |
|--|---|
| 1.1. Product identifier  |   |
| Product form   | : Mixture   |
| Product name   | : NND Standard  |
| Product code   | : 505N  |
| Product group  | : Trade product   |
| 1.2. Relevant identified uses of the sul   | bstance or mixture and uses advised against   |
| 1.2.1. Relevant identified uses  |   |
| No additional information available  |   |
|  |   |
| 1.2.2. Uses advised against  |   |
| No additional information available  |   |
| <b>1.3. Details of the supplier of the safet</b><br>Geno Technology, Inc./ G-Biosciences | y data sheet  |
| 9800 Page Avenue   |   |
| 63132-1429 Saint Louis - United States   |   |
| T 800-628-7730 - F 314-991-1504  |   |
| technical@GBiosciences.com - www.GBioscie  | <u>nices.com</u>  |
| 1.4. Emergency telephone number<br>Emergency number                                      | : Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)  |
| Emergency number   | . Chemiles 1-000-424-3000 (007/Canada), 11-703-327-3007 (init)  |
|  |   |
| SECTION 2: Hazards identification<br>2.1. Classification of the substance or             |   |
| 2.1. Classification of the substance of  | mixture   |
| Classification according to Regulation (EC   | ) No. 1272/2008 [CLP]   |
| Not classified   |   |
|  |   |
| Adverse physicochemical, human health a  | nd environmental effects  |
|  | ent any particular risk, provided it is handled in accordance with good occupational hygiene and safety |
| practice.  |   |
| 2.2. Label elements  |   |
| Labelling according to Regulation (EC) No.   | 1272/2008 [CLP]   |
| No labelling applicable  |   |
| 2.3. Other hazards   |   |
| No additional information available  |   |
|  |   |
| SECTION 3: Composition/informat  | ion on ingredients  |
| 3.1. Substances  |   |
| Not applicable   |   |
| 3.2. Mixtures  |   |
| This mixture does not contain any substances   | to be mentioned according to the criteria of section 3.2 of REACH annex II                              |
| ,  | 5   |
| SECTION 4: First aid measures  |   |
| 4.1. Description of first aid measures   |   |
| First-aid measures after inhalation  | : Remove person to fresh air and keep comfortable for breathing.  |
| First-aid measures after skin contact  | : Wash skin with plenty of water.   |
| First-aid measures after eye contact   | : Rinse eyes with water as a precaution.  |
| First-aid measures after ingestion   | : Call a poison center or a doctor if you feel unwell.  |
| 4.2. Most important symptoms and eff   |   |
| No additional information available  | ects, both acute and delayed  |
|  | ects, both acute and delayed  |
|  | cal attention and special treatment needed  |
| <b>4.3. Indication of any immediate media</b><br>Treat symptomatically.                  |   |
| Treat symptomatically.   | cal attention and special treatment needed  |
| Treat symptomatically. SECTION 5: Firefighting measures                                  | cal attention and special treatment needed  |
| Treat symptomatically.   | cal attention and special treatment needed  |

**5.2. Special hazards arising from the substance or mixture** Hazardous decomposition products in case of fire : Toxic fumes may be released.

| 5.3. Advice for firefighters   |  |
|--|--|
| Protection during firefighting   | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.                   |
| SECTION 6: Accidental release mo   | easures  |
|  | equipment and emergency procedures   |
| 6.1.1. For non-emergency personnel<br>Emergency procedures   | : Ventilate spillage area.   |
| 6.1.2. For emergency responders<br>Protective equipment  | : Do not attempt to take action without suitable protective equipment. For further informatio refer to section 8: "Exposure controls/personal protection". |
| 6.2. Environmental precautions<br>Avoid release to the environment.  |  |
| 6.3. Methods and material for contain  | ment and cleaning up   |
| Methods for cleaning up  | : Take up liquid spill into absorbent material.  |
| Other information  | : Dispose of materials or solid residues at an authorized site.  |
| 6.4. Reference to other sections   |  |
| For further information refer to section 13.   |  |
| SECTION 7: Handling and storage  |  |
| 7.1. Precautions for safe handling   |  |
| Precautions for safe handling  | : Ensure good ventilation of the work station. Wear personal protective equipment.   |
| Hygiene measures   | : Do not eat, drink or smoke when using this product. Always wash hands after handling th<br>product.  |
| 7.2. Conditions for safe storage, inclu<br>Storage conditions  | ding any incompatibilities<br>: Store in a well-ventilated place. Keep cool.   |
| 7.3. Specific end use(s)   |  |
| No additional information available  |  |
| SECTION 8: Exposure controls/pe  | rsonal protection  |
| 8.1. Control parameters  |  |
| No additional information available  |  |
|  |  |
| 8.2. Exposure controls   |  |
| Appropriate engineering controls:  |  |
| Appropriate engineering controls:<br>Ensure good ventilation of the work station.  |  |
| Appropriate engineering controls:<br>Ensure good ventilation of the work station.<br>Hand protection:  |  |
| Appropriate engineering controls:<br>Ensure good ventilation of the work station.<br>Hand protection:<br>Protective gloves   |  |
| Appropriate engineering controls:<br>Ensure good ventilation of the work station.<br>Hand protection:<br>Protective gloves<br>Eye protection:  |  |
| Appropriate engineering controls:<br>Ensure good ventilation of the work station.<br>Hand protection:<br>Protective gloves<br>Eye protection:<br>Safety glasses  |  |
| Appropriate engineering controls:<br>Ensure good ventilation of the work station.<br>Hand protection:<br>Protective gloves<br>Eye protection:<br>Safety glasses<br>Skin and body protection:   |  |
| Appropriate engineering controls:         Ensure good ventilation of the work station.         Hand protection:         Protective gloves         Eye protection:         Safety glasses         Skin and body protection:         Wear suitable protective clothing   |  |
| Appropriate engineering controls:<br>Ensure good ventilation of the work station.<br>Hand protection:<br>Protective gloves<br>Eye protection:<br>Safety glasses<br>Skin and body protection:   | ble respiratory equipment  |
| Appropriate engineering controls:<br>Ensure good ventilation of the work station.<br>Hand protection:<br>Protective gloves<br>Eye protection:<br>Safety glasses<br>Skin and body protection:<br>Wear suitable protective clothing<br>Respiratory protection:<br>In case of insufficient ventilation, wear suitable | le respiratory equipment   |
| Appropriate engineering controls:         Ensure good ventilation of the work station.         Hand protection:         Protective gloves         Eye protection:         Safety glasses         Skin and body protection:         Wear suitable protective clothing         Respiratory protection:               | ole respiratory equipment  |

| 9.1. Information on basic physical and chemical properties |                     |  |  |
|--|---------------------|--|--|
| Physical state   | : Liquid            |  |  |
| Colour   | : No data available |  |  |
| Odour  | : No data available |  |  |
| Odour threshold  | : No data available |  |  |
| рН   | : No data available |  |  |
| Relative evaporation rate (butylacetate=1)                 | : No data available |  |  |
| Melting point  | : Not applicable    |  |  |
| Freezing point   | : No data available |  |  |
| Boiling point  | : No data available |  |  |
|  |                     |  |  |

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| Flash point                      | : No data available |
|----------------------------------|---------------------|
| Auto-ignition temperature        | : No data available |
| Decomposition temperature        | : No data available |
| Flammability (solid, gas)        | : Not applicable    |
| Vapour pressure                  | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density                 | : No data available |
| Solubility                       | : No data available |
| Log Pow                          | : No data available |
| Viscosity, kinematic             | : No data available |
| Viscosity, dynamic               | : No data available |
| Explosive properties             | : No data available |
| Oxidising properties             | : No data available |
| Explosive limits                 | : No data available |
| 9.2 Other information            |                     |

9.2. Other information No additional information available

| SECTION 10: Stability and reactivity   |
|--|
| 10.1. Reactivity   |
| The product is non-reactive under normal conditions of use, storage and transport. |
| 10.2. Chemical stability   |
| Stable under normal conditions.  |
| 10.3. Possibility of hazardous reactions   |
| No dangerous reactions known under normal conditions of use.                       |
| 10.4. Conditions to avoid  |
| None under recommended storage and handling conditions (see section 7).            |
| 10.5. Incompatible materials   |
| No additional information available  |
| 10.6. Hazardous decomposition products   |
| Hazardous decomposition products.  |
|  |

| <b>SECTION 11: Toxicological informa</b> | ion              |  |
|--|------------------|--|
| 11.1. Information on toxicological effec | S                |  |
| Acute toxicity (oral)                    | : Not classified |  |
| Acute toxicity (dermal)                  | : Not classified |  |
| Acute toxicity (inhalation)              | : Not classified |  |
| Skin corrosion/irritation                | : Not classified |  |
| Serious eye damage/irritation            | : Not classified |  |
| Respiratory or skin sensitisation        | : Not classified |  |
| Germ cell mutagenicity                   | : Not classified |  |
| Carcinogenicity                          | : Not classified |  |
| Reproductive toxicity                    | : Not classified |  |
| STOT-single exposure                     | : Not classified |  |
| STOT-repeated exposure                   | : Not classified |  |
| Aspiration hazard                        | : Not classified |  |
|  |                  |  |
| <b>SECTION 12: Ecological informatio</b> |                  |  |

| SECTION 12. ECOlogical information   |  |
|--|--|
| 12.1. Toxicity   |  |
| Ecology - general  | : The product is not considered harmful to aquatic organisms nor to cause long-term<br>adverse effects in the environment. |
| Acute aquatic toxicity   | : Not classified   |
| Chronic aquatic toxicity   | : Not classified   |
| 12.2. Persistence and degradability         No additional information available         12.3. Bioaccumulative potential         No additional information available         12.4. Machility in available |  |
| 12.4. Mobility in soil   |  |
| No additional information available  |  |
| 12.5. Results of PBT and vPvB assessment   |  |
| No additional information available  |  |

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## **12.6. Other adverse effects** No additional information available

| SECTION 13: Disposal considerations                                |  |
|--|--|
| 13.1. Waste treatment methods                                      |  |
| Waste treatment methods  | : Waste treatment methods.                       |
| SECTION 14: Transport information                                  |  |
| In accordance with ADR / RID / IMDG / IATA / ADN                   |  |
| 14.1. UN number  |  |
| UN-No. (ADR)   | : Not applicable                                 |
| UN-No. (IMDG)  | : Not applicable                                 |
| UN-No. (IATA)  | : Not applicable                                 |
| UN-No. (ADN)   | : Not applicable                                 |
| UN-No. (RID)   | : Not applicable                                 |
| <b>14.2. UN proper shipping name</b><br>Proper Shipping Name (ADR) | · Net applicable                                 |
| Proper Shipping Name (IMDG)  | : Not applicable<br>: Not applicable             |
| Proper Shipping Name (IATA)  | : Not applicable                                 |
| Proper Shipping Name (ADN)   | : Not applicable                                 |
| Proper Shipping Name (RID)   | : Not applicable                                 |
| 14.3. Transport hazard class(es)                                   |  |
| ADR  |  |
| Transport hazard class(es) (ADR)                                   | : Not applicable                                 |
|  | . Not applicable                                 |
|  | Mad and Read I.                                  |
| Transport hazard class(es) (IMDG)                                  | : Not applicable                                 |
| ΙΑΤΑ   |  |
| Transport hazard class(es) (IATA)                                  | : Not applicable                                 |
| ADN  |  |
| Transport hazard class(es) (ADN)                                   | : Not applicable                                 |
| RID  |  |
| Transport hazard class(es) (RID)                                   | : Not applicable                                 |
| 14.4. Packing group  |  |
| Packing group (ADR)  | : Not applicable                                 |
| Packing group (IMDG)   | : Not applicable                                 |
| Packing group (IATA)   | : Not applicable                                 |
| Packing group (ADN)  | : Not applicable                                 |
| Packing group (RID)  | : Not applicable                                 |
| 14.5. Environmental hazards  | - No   |
| Dangerous for the environment                                      | : No   |
| Marine pollutant<br>Other information                              | : No<br>: No supplementary information available |
| 14.6. Special precautions for user                                 |  |
| Overland transport   |  |
| Not applicable   |  |
| Transport by sea   |  |
| Not applicable   |  |
|  |  |
| Air transport  |  |
| Not applicable   |  |
| Inland waterway transport  |  |
| Not applicable   |  |
| Rail transport   |  |
| Not applicable   |  |
| 14.7. Transport in bulk according to Annex I                       | I of Marpol and the IBC Code                     |

Not applicable

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### **SECTION 15: Regulatory information**

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### SECTION 16: Other information

Safety Data Sheet applicable for regions

: GB - United Kingdom

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



## **NND Reagent A**

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| Product form   | ntifier  | <b>_</b>   |                                     |         |
|--|--|--|-------------------------------------|---------|
| Substance name   |  |  |                                     |         |
| ubstance name : NND Reagent A                                |  |  |                                     |         |
| EC-No.   |  |  |                                     |         |
| CAS-No.  |  | : 2646-71-1  |                                     |         |
| Product code   |  | : 507N   |                                     |         |
| Type of product  |  | : Pure substance   |                                     |         |
| Formula  |  | : C21H30N7O17P3.4Na  |                                     |         |
| Synonyms   |  | : adenosine 5'-(trihydrogen diphosphate), 2'-(dihydrogen phosphate), 5'->5'-ester with 1,4-<br>dihydro-1-beta-D-ribofuranosyl-3-pyridinecarboxamide, tetrasodium salt / beta-nicotinamid<br>adenine dinucleotide phosphate, tetrasodium salt / dihydronicotinamide adenine<br>dinucleotide phosphate, tetrasodium salt / NADPH (=nicotinamide adenine dinucleotide<br>phosphate), tetrasodium salt |                                     |         |
| Product group  |  | : Trade product  |                                     |         |
| BIG No   |  | : 44749  |                                     |         |
| .2. Relevant ide   | entified uses of the substan   | ce or mixture and uses   | advised against                     |         |
| I.2.1. Relevant ide  |  |  |                                     |         |
| Jse of the substand  | ce/mixture   | : Medicine   |                                     |         |
| I.2.2. Uses advise   | •  |  |                                     |         |
|  | e supplier of the safety dat   | a sheet  |                                     |         |
| 9800 Page Avenue<br>63132-1429 Saint L<br>F 800-628-7730 - F | ouis - United States<br>314-991-1504   |  |                                     |         |
| echnical@GBiosci   | ences.com - www.GBiosciences.  | <u>com</u>   |                                     |         |
| I.4. Emergency<br>Emergency number                           | telephone number   | Chemtrec 1-800-424-9300 (  | USA/Canada), <b>+1-703-527-3887</b> | (Intl)  |
| Country  | Organisation/Company   | Address  | Emergency number                    | Comment |
| United Kingdom   | National Poisons Information<br>Service (Belfast Centre)<br>Royal Victoria Hospital                    | Grosvenor Road<br>BT12 6BA Belfast   | 0344 892 0111                       |         |
| United Kingdom   | National Poisons Information<br>Service (Birmingham Centre)<br>City Hospital                           | Dudley Road<br>B18 7QH Birmingham  | 0344 892 0111                       |         |
| United Kingdom   | National Poisons Information<br>Service (Cardiff Centre)<br>Gwenwyn Ward, Llandough<br>Hospital        | Penarth<br>CF64 2XX Cardiff  | 0344 892 0111                       |         |
| United Kingdom   | National Poisons Information<br>Service Edinburgh<br>Royal Infirmary of Edinburgh                      | Little France Crescent<br>EH16 4SA Edinburgh   | 0344 892 0111                       |         |
| United Kingdom   | Guy's & St Thomas' Poisons<br>Unit<br>Medical Toxicology Unit,<br>Guy's & St Thomas' Hospital<br>Trust | Avonley Road<br>SE14 5ER London  | +44 20 7188 7188                    |         |
|  |  |  |                                     |         |

Classification according to Regulation (EC) No. 1272/2008 [CLP] Serious eye damage/eye irritation, Category 2

Full text of H statements : see section 16

H319

# NND Reagent A Safety Data Sheet

1007/2006 (DEACLI) with it dment Regulation (FU) 2015/830

| according to Regulation (EC) No. 1907/2006 (RE/ | ACH) with its amendment Regulation (EU) 2015/830   |
|---|--|
| Adverse physicochemical, human health           | ı and environmental effects  |
| Causes serious eye irritation.                  |  |
| 2.2. Label elements                             |  |
| Labelling according to Regulation (EC) N        | lo. 1272/2008 [CLP]  |
| Hazard pictograms (CLP)                         | GHS07  |
| CLP Signal word                                 | : Warning  |
| Hazard statements (CLP)                         | : H319 - Causes serious eye irritation.  |
| Precautionary statements (CLP)                  | <ul> <li>P264 - Wash hands thoroughly after handling.</li> <li>P280 - Wear eye protection, face protection.</li> <li>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P337+P313 - If eye irritation persists: Get medical advice/attention.</li> </ul> |
| 2.3. Other hazards                              |  |

ittner na aru No additional information available

| SECTION 3: Composition/infor<br>3.1. Substances | mation on ingredients                     |     |   |
|---|---|-----|---|
| Substance type                                  | : Mono-constituent                        |     |   |
| Name  | Product identifier                        | %   | Classification according to<br>Regulation (EC) No.<br>1272/2008 [CLP] |
| NND Reagent A                                   | (CAS-No.) 2646-71-1<br>(EC-No.) 220-163-3 | 100 | Eye Irrit. 2, H319  |

### Full text of H-statements: see section 16

3.2. Mixtures Not applicable

| SECTION 4: First aid measures  |   |
|--|---|
| 4.1. Description of first aid measures                                       |   |
| First-aid measures general   | : Check the vital functions. Unconscious: maintain adequate airway and respiration.<br>Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation.<br>Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with<br>legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by<br>covering the victim (no warming up). Keep watching the victim. Give psychological aid.<br>Keep the victim calm, avoid physical strain. Depending on the victim's condition:<br>doctor/hospital. |
| First-aid measures after inhalation  | : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.   |
| First-aid measures after skin contact  | : Wash immediately with lots of water. Soap may be used. Take victim to a doctor if irritation persists.  |
| First-aid measures after eye contact   | : Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do.<br>Continue rinsing. Take victim to an ophthalmologist if irritation persists.  |
| First-aid measures after ingestion   | : Rinse mouth with water. Call Poison Information Centre (www.big.be/antigif.htm). Consult a<br>doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to<br>hospital.   |
| 4.2. Most important symptoms and effects,                                    | both acute and delayed  |
| Symptoms/effects after skin contact  | : ON CONTINUOUS EXPOSURE/CONTACT: Tingling/irritation of the skin.  |
| Symptoms/effects after eye contact   | : Irritation of the eye tissue.   |
| Symptoms/effects after ingestion   | : AFTER INGESTION OF HIGH QUANTITIES: Irritation of the gastric/intestinal mucosa.  |
| <b>4.3. Indication of any immediate medical at</b><br>Treat symptomatically. | tention and special treatment needed  |
| SECTION 5. Eirofighting massures   |   |
| SECTION 5: Firefighting measures   |   |
| 5.1. Extinguishing media Suitable extinguishing media                        | : Quick-acting ABC powder extinguisher. Class A foam extinguisher. Water (quick-acting  |
| Culture extinguishing mode   | . Quick-deling Abo powder chingdisher. Water (quick-deling  |

|  | extinguisher, reel). Water. Class A foam.                             |
|--|---|
| Unsuitable extinguishing media                 | : Quick-acting BC powder extinguisher. Quick-acting CO2 extinguisher. |
| 5.2. Special hazards arising from the substant | nce or mixture  |

5.2. 8 Hazardous decomposition products in case of fire

: On burning: release of toxic and corrosive gases/vapours (phosphorus oxides, nitrous vapours, carbon monoxide - carbon dioxide).

| 5.3. Advice for firefighters<br>Precautionary measures fire | : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows. |  |
|---|--|--|
| Firefighting instructions                                   | : Dilute toxic gases with water spray.   |  |
| Protection during firefighting                              | : Heat/fire exposure: compressed air/oxygen apparatus.   |  |
| SECTION 6: Accidental release measures                      |  |  |

| 6.1. Personal precautions, protective equipment and emergency procedures |   |  |
|--|---|--|
| 6.1.1. For non-emergency personnel                                       |   |  |
| Protective equipment   | : Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus.  |  |
| Emergency procedures   | ency procedures : Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames.<br>Wash contaminated clothes.   |  |
| Measures in case of dust release   | es in case of dust release : In case of dust production: keep upwind. Dust production: have neighbourhood close of and windows.   |  |
| 6.1.2. For emergency responders  |   |  |
| Protective equipment   | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".                         |  |
| 6.2. Environmental precautions   |   |  |
| Avoid release to the environment.  |   |  |
| 6.3. Methods and material for containment and cleaning up                |   |  |
| For containment  | : Contain released product, pump into suitable containers. Plug the leak, cut off the supply.<br>Knock down/dilute dust cloud with water spray.                                     |  |
| Methods for cleaning up  | : Stop dust cloud by humidifying. Scoop solid spill into closing containers. Clean<br>contaminated surfaces with an excess of water. Wash clothing and equipment after<br>handling. |  |
| Other information  | : Dispose of materials or solid residues at an authorized site.   |  |
| 6.4. Reference to other sections   |   |  |
| For further information refer to section 13.                             |   |  |

| SECTION 7: Handling and storage                                 |  |  |
|---|--|--|
| 7.1. Precautions for safe handling                              |  |  |
| Precautions for safe handling                                   | : Avoid raising dust. Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Clean contaminated clothing. Keep container tightly closed. |  |
| Hygiene measures  | : Observe normal hygiene standards.  |  |
| 2. Conditions for safe storage, including any incompatibilities |  |  |
| Storage conditions  | : Store in a well-ventilated place. Keep cool.   |  |
| Storage temperature   | : < -20 °C   |  |
| Heat and ignition sources                                       | : KEEP SUBSTANCE AWAY FROM: heat sources.  |  |
| Information on mixed storage                                    | : KEEP SUBSTANCE AWAY FROM: oxidizing agents. (strong) acids. (strong) bases.  |  |
| Storage area  | : Store in a dark area. To be kept quick-frozen. Meet the legal requirements.  |  |
| Special rules on packaging                                      | : SPECIAL REQUIREMENTS: closing. correctly labelled. meet the legal requirements.<br>Secure fragile packagings in solid containers.  |  |
|   |  |  |

7.3. Specific end use(s) No additional information available

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### Respiratory protection:

Dust production: dust mask with filter type P1

### Environmental exposure controls:

Avoid release to the environment.

| SECTION 9: Physical and chemical properties                |                              |
|--|------------------------------|
| 9.1. Information on basic physical and chemical properties |                              |
| Physical state   | : Solid                      |
| Appearance   | : Solid. Powder.             |
| Molecular mass   | : 833.36 g/mol               |
| Colour   | : Off-white to light yellow. |
| Odour  | : Odourless.                 |
| Odour threshold  | : No data available          |
| рН   | : No data available          |
| Relative evaporation rate (butylacetate=1)                 | : No data available          |
| Melting point  | : No data available          |
| Freezing point   | : Not applicable             |
| Boiling point  | : No data available          |
| Flash point  | : Not applicable             |
| Auto-ignition temperature                                  | : Not applicable             |
| Decomposition temperature                                  | : No data available          |
| Flammability (solid, gas)                                  | : Non flammable.             |
| Vapour pressure  | : No data available          |
| Relative vapour density at 20 °C                           | : Not applicable             |
| Relative density   | : No data available          |
| Solubility   | : No data available          |
| Log Pow  | : No data available          |
| Viscosity, kinematic                                       | : No data available          |
| Viscosity, dynamic   | : No data available          |
| Explosive properties                                       | : No data available          |
| Oxidising properties                                       | : No data available          |
| Explosive limits   | : Not applicable             |
| 9.2. Other information                                     |                              |
| VOC content  | :0%                          |

| SECTION 10: Stability and reactivity   |  |                                   |
|--|--|-----------------------------------|
| 10.1. Reactivity   |  |                                   |
| The product is non-reactive under normal conditions of use, storage and transport. |  |                                   |
| 10.2. Chemical stability   |  |                                   |
| Stable under normal conditions.  |  |                                   |
| 10.3. Possibility of hazardous reactions   |  |                                   |
| No dangerous reactions known under normal conditions of use.                       |  |                                   |
| 10.4. Conditions to avoid  |  |                                   |
| None under recommended storage and handling conditions (see section 7).            |  |                                   |
| 10.5. Incompatible materials   |  |                                   |
| No additional information available 10.6. Hazardous decomposition products         |  |                                   |
|  |  | Hazardous decomposition products. |

| <b>SECTION 11: Toxicological information</b> |                                  |
|--|----------------------------------|
| 11.1. Information on toxicological effects   |                                  |
| Acute toxicity (oral)                        | : Not classified                 |
| Acute toxicity (dermal)                      | : Not classified                 |
| Acute toxicity (inhalation)                  | : Not classified                 |
| Skin corrosion/irritation                    | : Not classified                 |
| Serious eye damage/irritation                | : Causes serious eye irritation. |
| Respiratory or skin sensitisation            | : Not classified                 |
| Germ cell mutagenicity                       | : Not classified                 |
| Carcinogenicity                              | : Not classified                 |

| Reproductive toxicity                                  | : Not classified                 |
|--|----------------------------------|
| STOT-single exposure                                   | : Not classified                 |
| STOT-repeated exposure                                 | : Not classified                 |
| Aspiration hazard                                      | : Not classified                 |
| Potential adverse human health effects and<br>symptoms | : Causes serious eye irritation. |

| SECTION 12: Ecological information       |  |  |
|--|--|--|
| 12.1. Toxicity                           |  |  |
| Ecology - general :                      | Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008. |  |
| Ecology - air :                          | Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).                            |  |
| Ecology - water :                        | Mild water pollutant (surface water). No data available on ecotoxicity.                                    |  |
| Acute aquatic toxicity :                 | Not classified   |  |
| Chronic aquatic toxicity :               | Not classified   |  |
| 12.2. Persistence and degradability      |  |  |
| NND Reagent A (2646-71-1)                |  |  |
| Persistence and degradability            | Biodegradability in water: no data available.  |  |
| 12.3. Bioaccumulative potential          |  |  |
| NND Reagent A (2646-71-1)                |  |  |
| Bioaccumulative potential                | No bioaccumulation data available.   |  |
| 12.4. Mobility in soil                   |  |  |
| No additional information available      |  |  |
| 12.5. Results of PBT and vPvB assessment |  |  |
| No additional information available      |  |  |
| 12.6. Other adverse effects              |  |  |
| No additional information available      |  |  |

| SECTION 13: Disposal considerations        |  |
|--|--|
| 13.1. Waste treatment methods              |  |
| Waste treatment methods                    | : Waste treatment methods.   |
| Product/Packaging disposal recommendations | : Remove to an authorized waste treatment plant. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. |
| Additional information                     | : Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.   |
| European List of Waste (LoW) code          | : 15 01 10* - packaging containing residues of or contaminated by dangerous substances<br>16 03 05* - organic wastes containing dangerous substances   |

## SECTION 14: Transport information In accordance with ADR / RID / IMDG / IATA / ADN

| 14.1. UN number                  |                  |  |
|----------------------------------|------------------|--|
| UN-No. (ADR)                     | : Not applicable |  |
| UN-No. (IMDG)                    | : Not applicable |  |
| UN-No. (IATA)                    | : Not applicable |  |
| UN-No. (ADN)                     | : Not applicable |  |
| UN-No. (RID)                     | : Not applicable |  |
| 14.2. UN proper shipping name    |                  |  |
| Proper Shipping Name (ADR)       | : Not applicable |  |
| Proper Shipping Name (IMDG)      | : Not applicable |  |
| Proper Shipping Name (IATA)      | : Not applicable |  |
| Proper Shipping Name (ADN)       | : Not applicable |  |
| Proper Shipping Name (RID)       | : Not applicable |  |
| 14.3. Transport hazard class(es) |                  |  |
| ADR                              |                  |  |
| Transport hazard class(es) (ADR) | : Not applicable |  |

## **NND Reagent A**

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| IMDG                                       |  |
|--|--|
| Transport hazard class(es) (IMDG)          | : Not applicable                         |
| ΙΑΤΑ                                       |  |
| Transport hazard class(es) (IATA)          | : Not applicable                         |
| ADN  |  |
| Transport hazard class(es) (ADN)           | : Not applicable                         |
| RID  |  |
| Transport hazard class(es) (RID)           | : Not applicable                         |
| 14.4. Packing group                        |  |
| Packing group (ADR)                        | : Not applicable                         |
| Packing group (IMDG)                       | : Not applicable                         |
| Packing group (IATA)                       | : Not applicable                         |
| Packing group (ADN)                        | : Not applicable                         |
| Packing group (RID)                        | : Not applicable                         |
| 14.5. Environmental hazards                |  |
| Dangerous for the environment              | : No                                     |
| Marine pollutant                           | : No                                     |
| Other information                          | : No supplementary information available |
| 14.6. Special precautions for user         |  |
| Overland transport                         |  |
| Not applicable                             |  |
| Transport by sea                           |  |
| Not applicable                             |  |
| Air transport                              |  |
| Not applicable                             |  |
| Inland waterway transport                  |  |
| Not applicable                             |  |
| Rail transport                             |  |
| Not applicable                             |  |
| 14.7 Transport in bulk according to Approx | II of Marpol and the IBC Code            |
| 14.7. Transport in burk according to Annex |  |

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

NND Reagent A is not on the REACH Candidate List

NND Reagent A is not on the REACH Annex XIV List

NND Reagent A is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

NND Reagent A is not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

### 15.1.2. National regulations

Not listed on the United States TSCA (Toxic Substances Control Act) inventory Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

:0%

### **15.2. Chemical safety assessment**

No chemical safety assessment has been carried out

### **SECTION 16: Other information**

| Full text of H- and EUH-statements:                            |   |  |
|--|---|--|
| Eye Irrit. 2   | Serious eye damage/eye irritation, Category 2 |  |
| H319   | Causes serious eye irritation.                |  |
| Safety Data Sheet applicable for regions : GB - United Kingdom |   |  |

## **NND Reagent A**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



## **NND Reagent B**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| SECTION 1: Identification of the su  | ubstance/mixture and of the company/undertaking   |
|--|---|
| 1.1. Product identifier  |   |
| Product form   | : Mixture   |
| Product name   | : NND Reagent B   |
| Product code   | : 508N  |
| Product group  | : Trade product   |
| 1.2. Relevant identified uses of the sul   | ostance or mixture and uses advised against   |
| 1.2.1. Relevant identified uses  | · · · · · · · · · · · · · · · · · · ·   |
| No additional information available  |   |
| 1.2.2. Uses advised against  |   |
| No additional information available  |   |
| 1.3. Details of the supplier of the safet  | y data sheet  |
| Geno Technology, Inc./ G-Biosciences   |   |
| 9800 Page Avenue<br>63132-1429 Saint Louis - United States                         |   |
| T 800-628-7730 - F 314-991-1504  |   |
| technical@GBiosciences.com - www.GBiosciences.com                                  | ences.com   |
| 1.4. Emergency telephone number  |   |
| Emergency number   | : Chemtrec <b>1-800-424-9300</b> (USA/Canada), <b>+1-703-527-3887</b> (Intl)  |
|  |   |
| SECTION 2: Hazards identification  |   |
| 2.1. Classification of the substance or  | mixture   |
| Classification according to Regulation (EC   | No. 1272/2008 [CLP]   |
| Not classified   |   |
|  |   |
| Adverse abveisschemisst, bymen bestählt  |   |
| Adverse physicochemical, human health a  | ant environmental enects<br>ant any particular risk, provided it is handled in accordance with good occupational hygiene and safety |
| practice.  | and any particular risk, provided it is handled in accordance with good occupational hygiene and salety                             |
| 2.2. Label elements  |   |
|  |   |
| Labelling according to Regulation (EC) No.   | 1272/2008 [CLP]   |
| No labelling applicable  |   |
| 2.3. Other hazards<br>No additional information available                          |   |
|  |   |
| SECTION 3: Composition/informat  | ion on ingredients  |
| 3.1. Substances  |   |
| Not applicable   |   |
| 3.2. Mixtures  |   |
|  |   |
| This mixture does not contain any substances                                       | to be mentioned according to the criteria of section 3.2 of REACH annex II  |
|  |   |
| SECTION 4: First aid measures  |   |
| 4.1. Description of first aid measures   | Demonstration of the forest state of the second state to the state of the   |
| First-aid measures after inhalation  | : Remove person to fresh air and keep comfortable for breathing.  |
| First-aid measures after skin contact  | : Wash skin with plenty of water.   |
| First-aid measures after eye contact   | : Rinse eyes with water as a precaution.  |
| First-aid measures after ingestion   | : Call a poison center or a doctor if you feel unwell.  |
| <b>4.2. Most important symptoms and eff</b><br>No additional information available | ects, both acute and delayed  |
| 4.3. Indication of any immediate medic   | al attention and special treatment needed   |
| Treat symptomatically.   |   |
|  |   |
| SECTION 5: Firefighting measures   |   |
| 5.1. Extinguishing media   | Weter enroy Dry neuder Foort Oother disside   |
| Suitable extinguishing media   | : Water spray. Dry powder. Foam. Carbon dioxide.  |

**5.2. Special hazards arising from the substance or mixture** Hazardous decomposition products in case of fire : Toxic fumes may be released.

## **NND Reagent B**

| 5.3. Advice for firefighters  |  |
|---|--|
| Protection during firefighting  | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.                   |
| SECTION 6: Accidental release me<br>6.1. Personal precautions, protective e             |  |
|   |  |
| 6.1.1. For non-emergency personnel<br>Emergency procedures                              | : Ventilate spillage area.   |
| 6.1.2. For emergency responders<br>Protective equipment                                 | : Do not attempt to take action without suitable protective equipment. For further informatio refer to section 8: "Exposure controls/personal protection". |
| 6.2. Environmental precautions<br>Avoid release to the environment.                     |  |
| 6.3. Methods and material for containn  | cont and cleaning up   |
| Methods for cleaning up   | : Take up liquid spill into absorbent material.  |
| Other information   | : Dispose of materials or solid residues at an authorized site.  |
| <b>6.4. Reference to other sections</b><br>For further information refer to section 13. |  |
| SECTION 7: Handling and storage   |  |
| 7.1. Precautions for safe handling Precautions for safe handling                        | : Ensure good ventilation of the work station. Wear personal protective equipment.   |
| Hygiene measures  | : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.  |
| 7.2. Conditions for safe storage, incluc<br>Storage conditions                          | ing any incompatibilities<br>: Store in a well-ventilated place. Keep cool.  |
| 7.3. Specific end use(s)<br>No additional information available                         |  |
| SECTION 8: Exposure controls/per  | rsonal protection  |
| 8.1. Control parameters   |  |
| No additional information available   |  |
| 8.2. Exposure controls  |  |
| Appropriate engineering controls:<br>Ensure good ventilation of the work station.       |  |
| Hand protection:  |  |
| Protective gloves   |  |
| Eye protection:   |  |
| Safety glasses  |  |
| Skin and body protection:   |  |
| Wear suitable protective clothing   |  |
| Respiratory protection:   |  |
| In case of insufficient ventilation, wear suitabl                                       | e respiratory equipment  |
| Environmental exposure controls:  |  |
| Avoid release to the environment.   |  |

| 9.1. Information on basic physical and chemical properties |                     |  |  |
|--|---------------------|--|--|
| Physical state   | : Liquid            |  |  |
| Colour   | : No data available |  |  |
| Odour  | : No data available |  |  |
| Odour threshold  | : No data available |  |  |
| рН   | : No data available |  |  |
| Relative evaporation rate (butylacetate=1)                 | : No data available |  |  |
| Melting point  | : Not applicable    |  |  |
| Freezing point   | : No data available |  |  |
| Boiling point  | : No data available |  |  |

| Flash point                      | : No data available |
|----------------------------------|---------------------|
| Auto-ignition temperature        | : No data available |
| Decomposition temperature        | : No data available |
| Flammability (solid, gas)        | : Not applicable    |
| Vapour pressure                  | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density                 | : No data available |
| Solubility                       | : No data available |
| Log Pow                          | : No data available |
| Viscosity, kinematic             | : No data available |
| Viscosity, dynamic               | : No data available |
| Explosive properties             | : No data available |
| Oxidising properties             | : No data available |
| Explosive limits                 | : No data available |
| 9.2 Other information            |                     |

9.2. Other information No additional information available

| SECTION 10: Stability and reactivity   |
|--|
| 10.1. Reactivity   |
| The product is non-reactive under normal conditions of use, storage and transport. |
| 10.2. Chemical stability   |
| Stable under normal conditions.  |
| 10.3. Possibility of hazardous reactions   |
| No dangerous reactions known under normal conditions of use.                       |
| 10.4. Conditions to avoid  |
| None under recommended storage and handling conditions (see section 7).            |
| 10.5. Incompatible materials   |
| No additional information available  |
| 10.6. Hazardous decomposition products   |
| Hazardous decomposition products.  |
|  |

| <b>SECTION 11: Toxicological information</b> |                  |
|--|------------------|
| 11.1. Information on toxicological effects   |                  |
| Acute toxicity (oral)                        | : Not classified |
| Acute toxicity (dermal)                      | : Not classified |
| Acute toxicity (inhalation)                  | : Not classified |
| Skin corrosion/irritation                    | : Not classified |
| Serious eye damage/irritation                | : Not classified |
| Respiratory or skin sensitisation            | : Not classified |
| Germ cell mutagenicity                       | : Not classified |
| Carcinogenicity                              | : Not classified |
| Reproductive toxicity                        | : Not classified |
| STOT-single exposure                         | : Not classified |
| STOT-repeated exposure                       | : Not classified |
| Aspiration hazard                            | : Not classified |
|  |                  |

| SECTION 12: Ecological information       |  |
|--|--|
| 12.1. Toxicity                           |  |
| Ecology - general                        | : The product is not considered harmful to aquatic organisms nor to cause long-term<br>adverse effects in the environment. |
| Acute aquatic toxicity                   | : Not classified   |
| Chronic aquatic toxicity                 | : Not classified   |
| 12.2. Persistence and degradability      |  |
| No additional information available      |  |
| 12.3. Bioaccumulative potential          |  |
| No additional information available      |  |
| 12.4. Mobility in soil                   |  |
| No additional information available      |  |
| 12.5. Results of PBT and vPvB assessment |  |
| No additional information available      |  |

### 12.6. Other adverse effects No additional information available

| SECTION 13: Disposal considerations                                |  |
|--|--|
| 13.1. Waste treatment methods                                      |  |
| Waste treatment methods  | : Waste treatment methods.                       |
| SECTION 14: Transport information                                  |  |
| In accordance with ADR / RID / IMDG / IATA / ADN                   |  |
| 14.1. UN number  |  |
| UN-No. (ADR)   | : Not applicable                                 |
| UN-No. (IMDG)  | : Not applicable                                 |
| UN-No. (IATA)  | : Not applicable                                 |
| UN-No. (ADN)   | : Not applicable                                 |
| UN-No. (RID)   | : Not applicable                                 |
| <b>14.2. UN proper shipping name</b><br>Proper Shipping Name (ADR) | : Not applicable                                 |
| Proper Shipping Name (IMDG)  | : Not applicable                                 |
| Proper Shipping Name (IATA)  | : Not applicable                                 |
| Proper Shipping Name (ADN)   | : Not applicable                                 |
| Proper Shipping Name (RID)   | : Not applicable                                 |
| 14.3. Transport hazard class(es)                                   |  |
| ADR  |  |
| Transport hazard class(es) (ADR)                                   | : Not applicable                                 |
|  |  |
|  | Net eveloped.                                    |
| Transport hazard class(es) (IMDG)                                  | : Not applicable                                 |
| ΙΑΤΑ   |  |
| Transport hazard class(es) (IATA)                                  | : Not applicable                                 |
| ADN  |  |
| Transport hazard class(es) (ADN)                                   | : Not applicable                                 |
| RID  |  |
| Transport hazard class(es) (RID)                                   | : Not applicable                                 |
| 14.4. Packing group  |  |
| Packing group (ADR)  | : Not applicable                                 |
| Packing group (IMDG)   | : Not applicable                                 |
| Packing group (IATA)   | : Not applicable                                 |
| Packing group (ADN)  | : Not applicable                                 |
| Packing group (RID)  | : Not applicable                                 |
| 14.5. Environmental hazards  | : No   |
| Dangerous for the environment<br>Marine pollutant                  | : No   |
| Other information  | : No<br>: No supplementary information available |
| 14.6. Special precautions for user                                 |  |
| Overland transport   |  |
| Not applicable   |  |
| Transport by sea   |  |
| Not applicable   |  |
|  |  |
| Air transport  |  |
| Not applicable   |  |
| Inland waterway transport  |  |
| Not applicable   |  |
| Rail transport   |  |
| Not applicable   |  |
| 14.7. Transport in bulk according to Annex I                       | I of Marpol and the IBC Code                     |

Not applicable

## **NND Reagent B**

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### **SECTION 15: Regulatory information**

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## **SECTION 16: Other information**

Safety Data Sheet applicable for regions

: GB - United Kingdom

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



| Substance name       : NND Reagent C         C:No.       : 204-024-4         Color       : 113-24-6         Product code       : 500N         Type of product       : Pure substance         formula       : C3H3NaO3         Synonyms       : 20x0-propanoic acid, sodium salt / acetyfformic acid, sodium salt / propanoic acid, 2-oxo-<br>roduct regit / pyrucic acid sodium pyruvate / sodium-pyruvate         Product group       : Trade product         310 No       : 27759         1.2. Relevant identified uses       or mixture and uses advised against         No additional information available       : 27759         1.2. Use advised against       :         No additional information available       :         1.2. Use advised against       :         No additional information available       :         3132-120 Sant Louis - United States       :         Serverice       :         Stational information available  | SECTION 1. Identification of the substan   | co/mixturo and of the company  | /undortakin     | a                                   |  |
|--|--|--|-----------------|-------------------------------------|--|
| Product from       : Slubiance         Subsition en name       : Slubiance         Subsition en name       : Slubiance         Subsition en name       : 204-024-4         CA-No.       : 113-24-6         Product cade       : 509N         Type of product       : Pure subsitione         Signing in the subsitione       : C343NaO.3         Synonyms       : 2.0x0-propanole acid, acodum salt / actifyttomic acid. sedium salt / propanole acid, 2-oxo.         Solution salt / provide acid       : 2.0x0-propanole acid, acodum salt / solution salt / solution salt / solution provide / soduum-provide / soduum-p  |  | ce/mixture and of the company  | /unuertakin     | <u>g</u>                            |  |
| EC-No. : 204-024-4<br>CAS-No. : 113-24-6<br>'Product code : 509N<br>Type of product : Pure substance -<br>Formula : C3H3NeO3<br>Synonyms : 2-0xo-propancic acid, sodium salt / sodium pyruvate / sodium-pyruvate<br>Product group : Trade product<br>316 No : 27759<br>1.2. Relevant identified uses of the substance or mixture and uses advised against<br>1.2. Relevant identified uses of the substance or mixture and uses advised against<br>1.2. Relevant identified uses of the substance or mixture and uses advised against<br>1.2. Relevant identified uses of the substance or mixture and uses advised against<br>1.2. Relevant identified uses of the substance or mixture and uses advised against<br>1.2. Uses advised against<br>No additional information available<br>1.2. Uses advised against<br>No additional information available<br>1.3. Details of the supplier of the safety data sheet<br>Semo Technology, Inc/ C-Biosciences<br>8000 Pag Avenue<br>31321-1242 Saint Louis - United States<br>1800-628-7730 - F 314-891-1504<br>Encerneroux Vielephone number<br>Emergency telephone number<br>Emergency telephone number<br>Emergency telephone number<br>2.1. Classification of the substance or mixture<br>Classification according to Regulation (EC) No. 1272/2008 [CLP]<br>Vot classified<br>Adverse physicochemical, human health and environmental effects<br>15 our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hysiene and safet<br>zateche.<br>2.2. Label elements<br>2.3. Other hazards<br>Vo additional information on ingredients<br>3.4. Substance or<br>3.5. Composition/information on ingredients<br>3.6. Substance or<br>3.6. Classification according to Regulation (EC) No. 1272/2008 [CLP]<br>Vot classified<br>3.6. Substances<br>3.6. Substances<br>3.6. Mone-constituent<br>Name<br>Product Identifier<br>3.6. Mone-constituent<br>Name<br>Product Identifier<br>3.6. Non Classified<br>3.6. Non Classified (CLP)<br>3.6. Non Classified (CLP)<br>3.7. Substances<br>3.6. Mone-constituent<br>3.6. Non Classified (CLP)<br>3.7. Non Reagent C<br>3.7. Mone<br>3.7. Classification according to<br>3.7. Classi                                   | Product form   | : Substance  |                 |                                     |  |
| CAS-No.       : 113-24-6         Product code       : 600N         Synonyms       : C343Na0.03         Synonyms       : C343Na0.03         Synonyms       : C343Na0.03         Synonyms       : S2-0xx-proponic acid, sodium salt / acitylformic acid, sodium pyruvate / sodium-pyruvate         Product group       : Trade product         Sin No       : 27759         12. Relevant identified uses       vs additional information available         1.1. Relevant identified uses       vs additional information available         1.2. Details of the supplier of the safety data sheet   | Substance name   |  |                 |                                     |  |
| Product code       : 509N         Type of product       :: Dure substance         Formula       :: C3H3NaO3         Synonyms       :: 2: 2xxxx-propanole acid, sodium salt / sectylformic acid, sodium-pyruvate / sodium-pyruvate         Product group       :: Trade product         30 No       :: 27759         12.1. Relevant identified uses of the substance or mixture and uses advised against         Va additional information available         1.2.2. Uses advised against         Va additional information available         1.3. Details of the supplier of the safety data sheet         Sono Technology, Inc/ C-Biosciences         8000 Page Avenue         3132-1429 Saint Louis - United States         8000 Page Avenue         Saint Louis - United States   | EC-No.   | : 204-024-4  |                 |                                     |  |
| Type of product       : Pure substance         Formula       : : : : : : : : : : : : : : : : : : :   | CAS-No.  | : 113-24-6   |                 |                                     |  |
| Synomy is       : C3H3NaO3         Synomy is       :: 2-xxx-propancic acid, sodium salt / acetylformic acid, sodium salt / sodium pyruvate / sodium-pyruvate / sodium-pyruv  | Product code   | : 509N   |                 |                                     |  |
| Synonyms : 2-oxo-propanoic acid, sodium salt / sodium salt   | Type of product  | : Pure substance   |                 |                                     |  |
| sodium sait / sodium sait / sodium sait / sodium pyruviate / sodium-pyruviate<br>Product group : Trade product<br>30 No : 27759<br>1.2. Relevant identified uses of the substance or mixture and uses advised against<br>1.2.1. Relevant identified uses<br>No additional information available<br>1.2.1. Lake advised against<br>No additional information available<br>1.3. Details of the supplier of the safety data sheet<br>300 Page Avenue<br>3132-1423 Safet Louis - United States<br>800 Page Avenue<br>314. Emergency telephone number<br>Emergency number : Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intt)<br>SECTION 2: Hazards Identification<br>2.1. Classification according to Regulation (EC) No. 1272/2008 (CLP)<br>Not classified<br>Adverse physicochemical, human health and environmental effects<br>75 our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safet<br>51 Substance<br>81. Substance<br>81. Substance<br>81. Substances<br>81. Subst | Formula  | : C3H3NaO3   |                 |                                     |  |
| Bill No       : 27759         1.2. Relevant identified uses of the substance or mixture and uses advised against         1.2.1. Relevant identified uses of the substance or mixture and uses advised against         Va additional information available         1.2. Uses advised against         Va additional information available         1.3. Details of the supplier of the safety data sheet         Geno Technology, Inc./ G-Biosciences         B00 Page Avenue         3132-1429 Saint Louis - United States         Faon-252 r730 - F 314-991-1504         schincal@GBiosciences.com - www.GBiosciences.com         1.4. Emergency tolephone number         Emergency number         : Chemitrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intil)         SECTION 2: Hazards identification         2.1. Classification according to Regulation (EC) No. 1272/2008 [CLP]         Vot classified         Adverse physicochemical, human health and environmental effects         To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safet variable         2.2. Other hazards         Vo talassified         SECTION 3: Composition/information on ingredients         2.3. Other hazards         Vo additional information available         SECTION 3: Composition/information on ingredients <td>Synonyms</td> <td colspan="4">: 2-oxo-propanoic acid, sodium salt / acetylformic acid, sodium salt / propanoic acid, 2-oxo-,</td>  | Synonyms   | : 2-oxo-propanoic acid, sodium salt / acetylformic acid, sodium salt / propanoic acid, 2-oxo-, |                 |                                     |  |
| 1.2. Relevant identified uses of the substance or mixture and uses advised against         1.2.1. Relevant identified uses         Vo additional information available         1.2.1. Uses advised against         Vo additional information available         1.3. Details of the supplier of the safety data sheet         Seon Technology, Inc/ CB-Biosciences         3800 Page Avenue         3312-1429 Saint Louis - United States         F00-628-7730 - F 31.4 091-1504         echnical@CBiosciences.com         1.4. Emergency telephone number         Emergency telephone number         Energency telephone number         Energency telephone number         Classification of the substance or mixture         Classification according to Regulation (EC) No. 1272/2008 [CLP]         Not classified         Adverse physicochemical, human health and environmental effects         To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safet practice.         2.2. Label elements         Labeling according to Regulation (EC) No. 1272/2008 [CLP]         Vo labeling applicable         2.3. Other nazards         Vo labeling applicable         2.3. Other nazards         Vo labeling applicable         2.3. Other nazards  | Product group  | : Trade product  |                 |                                     |  |
| 1.2.1. Relevant identified uses         No additional information available         1.2.2. Uses advised against         No additional information available         1.3. Details of the supplier of the safety data sheet         Geno Technology, Inc./ G-Biosciences         800 Page Avenue         3132-1429 Saint Louis - United States         F800-828_720.5 F 314-991-1504         echnical@GBiosciences.com - www.GBiosciences.com         1.4. Emergency telephone number         Emergency number         : Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)         SECTION 2: Hazards identification         2.1. Classification of the substance or mixture         Classified         Adverse physicochemical, human health and environmental effects         Fo our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safet racice.         2.2. Label elements         Labelling according to Regulation (EC) No. 1272/2008 [CLP]         Vo labelling applicable         2.3. Other hazards         No additional information available         SECTION 3: Composition/information on ingredients         31. Substance type         Substance type         Substance type         Mane         Name       P   | BIG No   | : 27759  |                 |                                     |  |
| No additional information available          1.2.2. Uses advised against         So additional information available         1.3. Details of the supplice of the safety data sheet         Beno Teachnology, Inc./ 0-Biosciences         1800 Page Avenue         13121/120 Saint Louis - United States         1800-628-7730 - F 314-991-1504         Central GBIosciences.com - www.GBIosciences.com         1.4. Emergency telephone number         Emergency telephone number         Emergency telephone number         Emergency telephone number         Statistication of the substance or mixture         Classification of the substance or mixture         Classified         Adverse physicochemical, human health and environmental effects         To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safet ractice.         2.1. Label elements         abelling according to Regulation (EC) No. 1272/2008 [CLP]         Note labelling applicable         2.3. Other hazards         Name       Product identifier         Name       Product identifier         %       Classification according to Regulation [C) No. 1272/2008 [CLP]         Nub Reagent C       (CAS-No.) 113-24-6       100  | I.2. Relevant identified uses of the substance   | or mixture and uses advised agai   | inst            |                                     |  |
| 33132-1429 Saint Louis - United States<br>7800-628-7730 - F 314-991-1504<br>echnical@GBiosciences.com - www.GBiosciences.com<br>1.4. Emergency telephone number<br>Emergency number : Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Inti)<br>SECTION 2: Hazards identification<br>2.1. Classification of the substance or mixture<br>Classification according to Regulation (EC) No. 1272/2008 [CLP]<br>Not classified<br>Adverse physicochemical, human health and environmental effects<br>To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safet<br>practice.<br>2.2. Label elements<br>Labelling according to Regulation (EC) No. 1272/2008 [CLP]<br>No labelling applicable<br>2.3. Other hazards<br>No additional information available<br>SECTION 3: Composition/information on ingredients<br>3.1. Substances<br>Substance type : Mono-constituent<br>Name Product identifier % Classification according to<br>Regulation (EC) No. 113-24-6 100 Not classified  | No additional information available<br><b>1.2.2. Uses advised against</b><br>No additional information available<br><b>1.3. Details of the supplier of the safety data s</b><br>Geno Technology, Inc./ G-Biosciences | sheet  |                 |                                     |  |
| Emergency number : Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)  SECTION 2: Hazards identification 2.1. Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP] Not classified  Adverse physicochemical, human health and environmental effects To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safet practice. 2.2. Label elements  | 63132-1429 Saint Louis - United States<br>Γ 800-628-7730 - F 314-991-1504<br>echnical@GBiosciences.com - www.GBiosciences.co   | <u>m</u>   |                 |                                     |  |
| SECTION 2: Hazards identification         2.1. Classification of the substance or mixture         Classification according to Regulation (EC) No. 1272/2008 [CLP]         Not classified         Adverse physicochemical, human health and environmental effects         To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safet or actioe.         2.2. Label elements         Labelling according to Regulation (EC) No. 1272/2008 [CLP]         No labelling applicable         2.3. Other hazards         No additional information available         SECTION 3: Composition/information on ingredients         3.1. Substances         Substance type         Name       Product identifier         %       Classification according to Regulation (EC) No. 1272/2008 [CLP]         NDR Reagent C       (CAS-No.) 113-24-6       100   | 1.4. Emergency telephone number  |  |                 | <b>x=</b> (1, (1))                  |  |
| 2.1. Classification of the substance or mixture         Classification according to Regulation (EC) No. 1272/2008 [CLP]         Not classified         Adverse physicochemical, human health and environmental effects         To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safet oractice.         2.2. Label elements         Labelling according to Regulation (EC) No. 1272/2008 [CLP]         No labelling applicable         2.3. Other hazards         No additional information available         SECCTION 3: Composition/information on ingredients         3.1. Substances         Substance type         Substance type         Image: Name         Product identifier       %         Classification according to Regulation (EC) No. 1272/2008 [CLP]         Nun Reagent C       (CAS-No.) 113-24-6         Nun Reagent C       100   | Emergency number : Cr  | nemtrec <b>1-800-424-9300</b> (USA/Canada), ·  | +1-/03-52/-388  | 67 (Inti)                           |  |
| 2.1. Classification of the substance or mixture         Classification according to Regulation (EC) No. 1272/2008 [CLP]         Not classified         Adverse physicochemical, human health and environmental effects         To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safet oractice.         2.2. Label elements         Labelling according to Regulation (EC) No. 1272/2008 [CLP]         No labelling applicable         2.3. Other hazards         No additional information available         SECCTION 3: Composition/information on ingredients         3.1. Substances         Substance type         Substance type         Image: Name         Product identifier       %         Classification according to Regulation (EC) No. 1272/2008 [CLP]         Nun Reagent C       (CAS-No.) 113-24-6         Nun Reagent C       100   |  |  |                 |                                     |  |
| Classification according to Regulation (EC) No. 1272/2008 [CLP]         Not classified         Adverse physicochemical, human health and environmental effects         To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safet oractice.         2.2. Label elements         Labelling according to Regulation (EC) No. 1272/2008 [CLP]         No labelling applicable         2.3. Other hazards         No additional information available         SECTION 3: Composition/information on ingredients         3.1. Substances         Substance type         Substance type         Name       Product identifier       %       Classification according to Regulation (EC) No. 1272/2008 [CLP]         NDR Reagent C       (CAS-No.) 113-24-6       100       Not classified  |  |  |                 |                                     |  |
| Not classified Adverse physicochemical, human health and environmental effects To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safet oractice. 2.2. Label elements Labelling according to Regulation (EC) No. 1272/2008 [CLP] No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/information on ingredients 3.1. Substances Substance type : Mono-constituent Name Product identifier % Classification according to Regulation (EC) No. 1272/2008 [CLP] NND Reagent C (CAS-No.) 113-24-6 100 Not classified  | 2.1. Classification of the substance or mixtur   | e  |                 |                                     |  |
| To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safet practice. 2.2. Label elements Labelling according to Regulation (EC) No. 1272/2008 [CLP] No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/information on ingredients 3.1. Substances Substance type : Mono-constituent Name Product identifier % Classification according to Regulation (EC) No. 1272/2008 [CLP] NND Reagent C (CAS-No.) 113-24-6 100 Not classified   | Classification according to Regulation (EC) No. 12<br>Not classified   | 72/2008 [CLP]  |                 |                                     |  |
| No labelling applicable         2.3. Other hazards         No additional information available         SECTION 3: Composition/information on ingredients         3.1. Substances         Substance type         Substance type         Mame         Product identifier         %         Classification according to Regulation (EC) No. 1272/2008 [CLP]         NND Reagent C       (CAS-No.) 113-24-6         100       Not classified   |  |  | cordance with g | ood occupational hygiene and safety |  |
| No additional information available         SECTION 3: Composition/information on ingredients         3.1. Substances         Substance type       : Mono-constituent         Name       Product identifier       %       Classification according to Regulation (EC) No. 1272/2008 [CLP]         NND Reagent C       (CAS-No.) 113-24-6       100       Not classified  | Labelling according to Regulation (EC) No. 1272/20<br>No labelling applicable  | 08 [CLP]   |                 |                                     |  |
| SECTION 3: Composition/information on ingredients         3.1. Substances         Substance type       : Mono-constituent         Name       Product identifier       %       Classification according to Regulation (EC) No. 1272/2008 [CLP]         NND Reagent C       (CAS-No.) 113-24-6       100       Not classified  | 2.3. Other hazards   |  |                 |                                     |  |
| 3.1. Substances         Substance type       : Mono-constituent         Name       Product identifier       %       Classification according to Regulation (EC) No. 1272/2008 [CLP]         NND Reagent C       (CAS-No.) 113-24-6       100       Not classified  | No additional information available  |  |                 |                                     |  |
| 3.1. Substances         Substance type       : Mono-constituent         Name       Product identifier       %       Classification according to Regulation (EC) No. 1272/2008 [CLP]         NND Reagent C       (CAS-No.) 113-24-6       100       Not classified  | SECTION 2: Composition/information on  | ingradianta  |                 |                                     |  |
| Substance type       : Mono-constituent         Name       Product identifier       %       Classification according to Regulation (EC) No. 1272/2008 [CLP]         NND Reagent C       (CAS-No.) 113-24-6       100       Not classified  |  | Ingredients  |                 |                                     |  |
| Name     Product identifier     %     Classification according to<br>Regulation (EC) No.<br>1272/2008 [CLP]       NND Reagent C     (CAS-No.) 113-24-6     100     Not classified  |  | : Mono-constituent   |                 |                                     |  |
| NND Reagent C (CAS-No.) 113-24-6 100 Not classified  | Name   | Product identifier   | %               | Regulation (EC) No.                 |  |
|  | NND Reagent C  |  | 100             |                                     |  |

## **3.2. Mixtures** Not applicable

| SECTION 4: First aid measures          |   |
|--|---|
| 4.1. Description of first aid measures |   |
| First-aid measures general             | : Check the vital functions. Unconscious: maintain adequate airway and respiration.<br>Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation.<br>Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with<br>legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by<br>covering the victim (no warming up). Keep watching the victim. Give psychological aid.<br>Keep the victim calm, avoid physical strain. Depending on the victim's condition:<br>doctor/hospital. |
| First-aid measures after inhalation    | : Remove the victim into fresh air.   |
| First-aid measures after skin contact  | : Wash immediately with lots of water (15 minutes)/shower. Soap may be used.  |
| First-aid measures after eye contact   | : Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present<br>and easy to do. Continue rinsing. Take victim to an ophthalmologist if irritation persists.   |
| First-aid measures after ingestion     | : Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Ingestion o<br>large quantities: immediately to hospital. Call Poison Information Centre<br>(www.big.be/antigif.htm).   |

: AFTER INGESTION OF HIGH QUANTITIES: Abdominal pain. Symptoms/effects 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

| SECTION 5: Firefighting measures                           |  |
|--|--|
| 5.1. Extinguishing media                                   |  |
| Suitable extinguishing media                               | : Quick-acting ABC powder extinguisher. Class A foam extinguisher. Water (quick-acting extinguisher, reel). Water. Class A foam.                 |
| Unsuitable extinguishing media                             | : Quick-acting BC powder extinguisher. Quick-acting CO2 extinguisher.  |
| 5.2. Special hazards arising from the substance or mixture |  |
| Fire hazard  | : DIRECT FIRE HAZARD: Non-flammable. In finely divided state: increased fire hazard.<br>INDIRECT FIRE HAZARD: Heating increases the fire hazard. |
| Explosion hazard   | : DIRECT EXPLOSION HAZARD: Fine dust is explosive with air. INDIRECT EXPLOSION<br>HAZARD: Dust cloud can be ignited by a spark.                  |
| Hazardous decomposition products in case of fire           | : Upon combustion: CO and CO2 are formed.  |
| 5.3. Advice for firefighters                               |  |
| Precautionary measures fire                                | : Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighbourhood close doors and windows.   |
| Protection during firefighting                             | : Heat/fire exposure: compressed air/oxygen apparatus.   |

| SECTION 6: Accidental release measures       |   |
|--|---|
| 6.1. Personal precautions, protective eq     | uipment and emergency procedures  |
| 6.1.1. For non-emergency personnel           |   |
| Protective equipment                         | : Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus.  |
| Emergency procedures                         | : Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes.  |
| Measures in case of dust release             | : In case of dust production: keep upwind. Dust production: have neighbourhood close doors<br>and windows. In case of dust production: stop engines and no smoking. In case of dust<br>production: no naked flames or sparks. Dust: spark-/explosionproof appliances/lighting<br>equipment. |
| 6.1.2. For emergency responders              |   |
| Protective equipment                         | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".   |
| 6.2. Environmental precautions               |   |
| Avoid release to the environment.            |   |
| 6.3. Methods and material for containme      | ent and cleaning up   |
| For containment                              | : Contain released product, pump into suitable containers. Plug the leak, cut off the supply.<br>Knock down/dilute dust cloud with water spray. Provide equipment/receptacles with<br>earthing. Powdered form: no compressed air for pumping over spills.                                   |
| Methods for cleaning up                      | Stop dust cloud by humidifying. Scoop solid spill into closing containers. Powdered: do not<br>use compressed air for pumping over spills. Clean contaminated surfaces with an excess<br>of water. Wash clothing and equipment after handling.  |
| Other information                            | : Dispose of materials or solid residues at an authorized site.   |
| 6.4. Reference to other sections             |   |
| For further information refer to section 13. |   |

| SECTION 7: Handling and storage                               |  |
|---|--|
| 7.1. Precautions for safe handling                            |  |
| Precautions for safe handling                                 | : Avoid raising dust. Keep away from naked flames/heat. Take precautions against electrostatic charges. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Clean contaminated clothing. Powdered form: no compressed air for pumping over. Keep container tightly closed. |
| Hygiene measures  | : Reduce/avoid exposure and/or contact.  |
| 7.2. Conditions for safe storage, including a                 | any incompatibilities  |
| Storage conditions  | : Store in a well-ventilated place. Keep cool.   |
| Storage temperature   | : 2 - 8 °C   |
| Heat and ignition sources                                     | : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.  |
| Information on mixed storage                                  | : KEEP SUBSTANCE AWAY FROM: oxidizing agents.  |
| Storage area  | : Store in a cool area. Store in a dry area. Keep container in a well-ventilated place. Provide for a cooling system. Provide the tank with earthing. Meet the legal requirements.   |
| Special rules on packaging                                    | : SPECIAL REQUIREMENTS: closing. correctly labelled. meet the legal requirements.<br>Secure fragile packagings in solid containers.  |
| Packaging materials   | : SUITABLE MATERIAL: plastics.   |
| 7.3. Specific end use(s)                                      |  |
| N La se de l'été au se l'indée mar se été au server (La la La |  |

No additional information available

| SECTION 8: Exposure controls/personal protection               |
|--|
| 8.1. Control parameters  |
| No additional information available                            |
| 8.2. Exposure controls   |
| Appropriate engineering controls:                              |
| Ensure good ventilation of the work station.                   |
| Hand protection:   |
| Gloves   |
| Eye protection:  |
| Safety glasses. In case of dust production: protective goggles |
| Skin and body protection:                                      |
| Protective clothing  |
| Respiratory protection:  |
| Dust formation: dust mask                                      |
| Environmental exposure controls:                               |

Environmental exposure controls:

Avoid release to the environment.

| SECTION 9: Physical and chemical properties                |                     |
|--|---------------------|
| 9.1. Information on basic physical and chemical properties |                     |
| Physical state   | : Solid             |
| Appearance   | : Solid. Powder.    |
| Molecular mass   | : 110.04 g/mol      |
| Colour   | : White.            |
| Odour  | : Odourless.        |
| Odour threshold  | : No data available |
| рН   | : 7 (10 %)          |
| Relative evaporation rate (butylacetate=1)                 | : No data available |
| Melting point  | : > 300 °C          |
| Freezing point   | : Not applicable    |
| Boiling point  | : No data available |
| Flash point  | : Not applicable    |
| Auto-ignition temperature                                  | : Not applicable    |
| Decomposition temperature                                  | : No data available |
| Flammability (solid, gas)                                  | : Non flammable.    |
| Vapour pressure  | : No data available |
|  |                     |

| Relative vapour density at 20 °C | : Not applicable    |
|----------------------------------|---------------------|
| Relative density                 | : No data available |
| Solubility                       | : Soluble in water. |
|                                  | Water: complete     |
| Log Pow                          | : No data available |
| Viscosity, kinematic             | : No data available |
| Viscosity, dynamic               | : No data available |
| Explosive properties             | : No data available |
| Oxidising properties             | : No data available |
| Explosive limits                 | : Not applicable    |
| 9.2. Other information           |                     |
| Other properties                 | : Neutral reaction. |
|                                  |                     |

| 10.1. Reactivity  |
|---|
| i of the total of the second se |
| The product is non-reactive under normal conditions of use, storage and transport.  |
| 10.2. Chemical stability  |
| Stable under normal conditions.   |
| 10.3. Possibility of hazardous reactions  |
| No dangerous reactions known under normal conditions of use.  |
| 10.4. Conditions to avoid   |
| None under recommended storage and handling conditions (see section 7).   |
| 10.5. Incompatible materials  |
| No additional information available   |
| 10.6. Hazardous decomposition products  |
| Hazardous decomposition products.   |

| <b>SECTION 11: Toxicological information</b> |                  |
|--|------------------|
| 11.1. Information on toxicological effects   |                  |
| Acute toxicity (oral)                        | : Not classified |
| Acute toxicity (dermal)                      | : Not classified |
| Acute toxicity (inhalation)                  | : Not classified |
| Skin corrosion/irritation                    | : Not classified |
|  | pH: 7 (10 %)     |
| Serious eye damage/irritation                | : Not classified |
|  | pH: 7 (10 %)     |
| Respiratory or skin sensitisation            | : Not classified |
| Germ cell mutagenicity                       | : Not classified |
| Carcinogenicity                              | : Not classified |
| Reproductive toxicity                        | : Not classified |
| STOT-single exposure                         | : Not classified |
| STOT-repeated exposure                       | : Not classified |
| Aspiration hazard                            | : Not classified |

| SECTION 12: Ecological information  |  |
|-------------------------------------|--|
| 12.1. Toxicity                      |  |
| Ecology - general :                 | Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008. |
| Ecology - water :                   | Mild water pollutant (surface water).  |
| Acute aquatic toxicity :            | Not classified   |
| Chronic aquatic toxicity :          | Not classified   |
| 12.2. Persistence and degradability |  |
| NND Reagent C (113-24-6)            |  |
| Persistence and degradability       | Biodegradability in soil: no data available.   |
| 12.3. Bioaccumulative potential     |  |
| NND Reagent C (113-24-6)            |  |
| Bioaccumulative potential           | No bioaccumulation data available.   |
| 12.4. Mobility in soil              |  |
| No additional information available |  |

| No additional information available |  |
|-------------------------------------|--|
| No additional mormation available   |  |

## **12.6. Other adverse effects** No additional information available

| SECTION 13: Disposal considerations        |  |
|--|--|
| 13.1. Waste treatment methods              |  |
| Waste treatment methods                    | : Waste treatment methods.   |
| Product/Packaging disposal recommendations | : Recycle/reuse. Remove to an authorized incinerator equipped with an afterburner and a<br>flue gas scrubber with energy recovery.                           |
| Additional information                     | : Can be considered as non hazardous waste according to Directive 2008/98/EC, as<br>amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997. |
| European List of Waste (LoW) code          | : 16 03 06 - organic wastes other than those mentioned in 16 03 05   |

| SECTION 14: Transport information                |  |
|--|--|
| In accordance with ADR / RID / IMDG / IATA / ADN |  |
| 14.1. UN number                                  |  |
| UN-No. (ADR)                                     | : Not applicable                         |
| UN-No. (IMDG)                                    | : Not applicable                         |
| UN-No. (IATA)                                    | : Not applicable                         |
| UN-No. (ADN)                                     | : Not applicable                         |
| UN-No. (RID)                                     | : Not applicable                         |
| 14.2. UN proper shipping name                    | Mist and Parkla                          |
| Proper Shipping Name (ADR)                       | : Not applicable                         |
| Proper Shipping Name (IMDG)                      | : Not applicable                         |
| Proper Shipping Name (IATA)                      | : Not applicable                         |
| Proper Shipping Name (ADN)                       | : Not applicable                         |
| Proper Shipping Name (RID)                       | : Not applicable                         |
| 14.3. Transport hazard class(es)                 |  |
| ADR  |  |
| Transport hazard class(es) (ADR)                 | : Not applicable                         |
| IMDG   |  |
| Transport hazard class(es) (IMDG)                | : Not applicable                         |
| ΙΑΤΑ   |  |
| Transport hazard class(es) (IATA)                | : Not applicable                         |
| ADN  |  |
| Transport hazard class(es) (ADN)                 | : Not applicable                         |
| RID  |  |
| Transport hazard class(es) (RID)                 | : Not applicable                         |
| 14.4. Packing group                              |  |
| Packing group (ADR)                              | : Not applicable                         |
| Packing group (IMDG)                             | : Not applicable                         |
| Packing group (IATA)                             | : Not applicable                         |
| Packing group (ADN)                              | : Not applicable                         |
| Packing group (RID)                              | : Not applicable                         |
| 14.5. Environmental hazards                      |  |
| Dangerous for the environment                    | : No                                     |
| Marine pollutant                                 | : No                                     |
| Other information                                | : No supplementary information available |
| 14.6. Special precautions for user               |  |
| Overland transport                               |  |
| Not applicable                                   |  |
| Transport by sea                                 |  |
| Not applicable                                   |  |
| Air transport                                    |  |
| Not applicable                                   |  |
| Inland waterway transport                        |  |
| Not applicable                                   |  |
|  |  |

## **NND Reagent C**

### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### Rail transport

### Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable

## **SECTION 15: Regulatory information**

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

### 15.1.1. EU-Regulations

No REACH Annex XVII restrictions

NND Reagent C is not on the REACH Candidate List

NND Reagent C is not on the REACH Annex XIV List

NND Reagent C is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

NND Reagent C is not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

### 15.1.2. National regulations

Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on the Canadian DSL (Domestic Substances List)

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### **SECTION 16: Other information**

### Safety Data Sheet applicable for regions

: GB - United Kingdom

### SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



## NND Reagent D

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| SECTION 1: Identification of the su  | ubstance/mixture and of the company/undertaking   |
|--|---|
| 1.1. Product identifier  |   |
| Product form   | : Mixture   |
| Product name   | : NND Reagent D   |
| Product code   | : 510N  |
| Product group  | : Trade product   |
| 1.2. Relevant identified uses of the sul   | ostance or mixture and uses advised against   |
| 1.2.1. Relevant identified uses  |   |
| No additional information available  |   |
| 1.2.2. Uses advised against  |   |
| No additional information available  |   |
| 1.3. Details of the supplier of the safet  | y data sheet  |
| Geno Technology, Inc./ G-Biosciences   | ,   |
| 9800 Page Avenue   |   |
| 63132-1429 Saint Louis - United States<br>T 800-628-7730 - F 314-991-1504  |   |
| technical@GBiosciences.com - www.GBioscie  | ences.com   |
| 1.4. Emergency telephone number  |   |
| Emergency number   | : Chemtrec <b>1-800-424-9300</b> (USA/Canada), <b>+1-703-527-3887</b> (Intl)                            |
|  |   |
| <b>SECTION 2: Hazards identification</b>   |   |
| 2.1. Classification of the substance or  | mixture   |
| Classification according to Regulation (EC   | No. 1272/2008 [CLP]   |
| Not classified   |   |
|  |   |
| To our knowledge, this product does not prese<br>practice.<br>2.2. Label elements  | ent any particular risk, provided it is handled in accordance with good occupational hygiene and safety |
|  |   |
| Labelling according to Regulation (EC) No.   | 1272/2008 [CLP]   |
| No labelling applicable  |   |
| 2.3. Other hazards<br>No additional information available  |   |
|  |   |
| <b>SECTION 3: Composition/informat</b>   | ion on ingredients  |
| 3.1. Substances  |   |
| Not applicable   |   |
| 3.2. Mixtures  |   |
| This mixture does not contain any substances   | to be mentioned according to the criteria of section 2.2 of PEACH approx II                             |
| This mixture does not contain any substances   | to be mentioned according to the criteria of section 3.2 of REACH annex II                              |
| SECTION 4: First aid measures  |   |
| 4.1. Description of first aid measures   | Demove nerven to freeh eiz and land an enviertable fan har athing                                       |
| First-aid measures after inhalation  | : Remove person to fresh air and keep comfortable for breathing.  |
| First-aid measures after skin contact  | : Wash skin with plenty of water.   |
| First-aid measures after eye contact   | : Rinse eyes with water as a precaution.  |
| First-aid measures after ingestion   | : Call a poison center or a doctor if you feel unwell.  |
| 4.2. Most important symptoms and effective of the symptometry of the s | ects, both acute and delayed  |
| 4.3. Indication of any immediate medic   | al attention and special treatment needed   |
| Treat symptomatically.   |   |
|  |   |
| SECTION 5: Firefighting measures   |   |
| 5.1. Extinguishing media   | Weter enrou Dry neuder Foom Carbon disside  |
| Suitable extinguishing media   | : Water spray. Dry powder. Foam. Carbon dioxide.  |

**5.2. Special hazards arising from the substance or mixture** Hazardous decomposition products in case of fire : Toxic fumes may be released.

## **NND Reagent D**

| 5.3. Advice for firefighters  | CH) with its amendment Regulation (EU) 2015/830  |
|---|--|
| Protection during firefighting  | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.                   |
| SECTION 6: Accidental release m   |  |
| 6.1. Personal precautions, protective   | equipment and emergency procedures   |
| 6.1.1. For non-emergency personnel<br>Emergency procedures                                | : Ventilate spillage area.   |
| 6.1.2. For emergency responders<br>Protective equipment                                   | : Do not attempt to take action without suitable protective equipment. For further informatio refer to section 8: "Exposure controls/personal protection". |
| 6.2. Environmental precautions<br>Avoid release to the environment.                       |  |
| 6.3. Methods and material for contair   | iment and cleaning up  |
| Methods for cleaning up   | : Take up liquid spill into absorbent material.  |
| Other information   | : Dispose of materials or solid residues at an authorized site.  |
| <b>6.4. Reference to other sections</b><br>For further information refer to section 13.   |  |
| SECTION 7: Handling and storage   | <del>ç</del>   |
| 7.1. Precautions for safe handling Precautions for safe handling                          | : Ensure good ventilation of the work station. Wear personal protective equipment.   |
| Hygiene measures  | : Do not eat, drink or smoke when using this product. Always wash hands after handling th product.   |
| 7.2. Conditions for safe storage, inclusion Storage conditions                            | uding any incompatibilities<br>: Store in a well-ventilated place. Keep cool.  |
| 7.3. Specific end use(s)<br>No additional information available                           |  |
| SECTION 8: Exposure controls/p  | ersonal protection   |
| 8.1. Control parameters No additional information available                               |  |
| 8.2. Exposure controls  |  |
| Appropriate engineering controls:   |  |
| Ensure good ventilation of the work station.  |  |
| Hand protection:  |  |
| Protective gloves   |  |
| Eye protection:   |  |
| Safety glasses  |  |
| , ,   |  |
| Skin and body protection:   |  |
|   |  |
| Skin and body protection:   |  |
| Skin and body protection:<br>Wear suitable protective clothing                            | ble respiratory equipment  |
| Skin and body protection:<br>Wear suitable protective clothing<br>Respiratory protection: | ble respiratory equipment  |

| 9.1. Information on basic physical and c   | hemical properties  |
|--|---------------------|
| Physical state                             | : Liquid            |
| Colour                                     | : No data available |
| Odour                                      | : No data available |
| Odour threshold                            | : No data available |
| рН   | : No data available |
| Relative evaporation rate (butylacetate=1) | : No data available |
| Melting point                              | : Not applicable    |
| Freezing point                             | : No data available |
| Boiling point                              | : No data available |

| Flash point                      | : No data available |
|----------------------------------|---------------------|
| Auto-ignition temperature        | : No data available |
| Decomposition temperature        | : No data available |
| Flammability (solid, gas)        | : Not applicable    |
| Vapour pressure                  | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density                 | : No data available |
| Solubility                       | : No data available |
| Log Pow                          | : No data available |
| Viscosity, kinematic             | : No data available |
| Viscosity, dynamic               | : No data available |
| Explosive properties             | : No data available |
| Oxidising properties             | : No data available |
| Explosive limits                 | : No data available |
| 9.2 Other information            |                     |

9.2. Other information No additional information available

| SECTION 10: Stability and reactivity   |
|--|
| 10.1. Reactivity   |
| The product is non-reactive under normal conditions of use, storage and transport. |
| 10.2. Chemical stability   |
| Stable under normal conditions.  |
| 10.3. Possibility of hazardous reactions   |
| No dangerous reactions known under normal conditions of use.                       |
| 10.4. Conditions to avoid  |
| None under recommended storage and handling conditions (see section 7).            |
| 10.5. Incompatible materials   |
| No additional information available  |
| 10.6. Hazardous decomposition products   |
| Hazardous decomposition products.  |
|  |

| <b>SECTION 11: Toxicological information</b> | 1                |
|--|------------------|
| 11.1. Information on toxicological effects   |                  |
| Acute toxicity (oral)                        | : Not classified |
| Acute toxicity (dermal)                      | : Not classified |
| Acute toxicity (inhalation)                  | : Not classified |
| Skin corrosion/irritation                    | : Not classified |
| Serious eye damage/irritation                | : Not classified |
| Respiratory or skin sensitisation            | : Not classified |
| Germ cell mutagenicity                       | : Not classified |
| Carcinogenicity                              | : Not classified |
| Reproductive toxicity                        | : Not classified |
| STOT-single exposure                         | : Not classified |
| STOT-repeated exposure                       | : Not classified |
| Aspiration hazard                            | : Not classified |
|  |                  |

| SECTION 12: Ecological information       |   |
|--|---|
| 12.1. Toxicity                           |   |
| Ecology - general                        | : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. |
| Acute aquatic toxicity                   | : Not classified  |
| Chronic aquatic toxicity                 | : Not classified  |
| 12.2. Persistence and degradability      |   |
| No additional information available      |   |
| 12.3. Bioaccumulative potential          |   |
| No additional information available      |   |
| 12.4. Mobility in soil                   |   |
| No additional information available      |   |
| 12.5. Results of PBT and vPvB assessment |   |
| No additional information available      |   |

### 12.6. Other adverse effects No additional information available

| SECTION 13: Disposal considerations<br>13.1. Waste treatment methods |  |
|--|--|
| Waste treatment methods  | : Waste treatment methods.               |
| SECTION 14: Transport information                                    |  |
| In accordance with ADR / RID / IMDG / IATA / ADN<br>14.1. UN number  |  |
| UN-No. (ADR)   | : Not applicable                         |
| UN-No. (IMDG)  | : Not applicable                         |
| UN-No. (IATA)  | : Not applicable                         |
| UN-No. (ADN)   | : Not applicable                         |
| UN-No. (RID)   | : Not applicable                         |
| 14.2. UN proper shipping name  |  |
| Proper Shipping Name (ADR)   | : Not applicable                         |
| Proper Shipping Name (IMDG)  | : Not applicable                         |
| Proper Shipping Name (IATA)  | : Not applicable                         |
| Proper Shipping Name (ADN)   | : Not applicable                         |
| Proper Shipping Name (RID)   | : Not applicable                         |
| 14.3. Transport hazard class(es)                                     |  |
| ADR  |  |
| Transport hazard class(es) (ADR)                                     | : Not applicable                         |
| IMDG   |  |
| Transport hazard class(es) (IMDG)                                    | : Not applicable                         |
| IATA   |  |
| Transport hazard class(es) (IATA)                                    | : Not applicable                         |
| ADN  |  |
| Transport hazard class(es) (ADN)                                     | : Not applicable                         |
| RID  |  |
| Transport hazard class(es) (RID)                                     | : Not applicable                         |
| 14.4. Packing group  |  |
| Packing group (ADR)  | : Not applicable                         |
| Packing group (IMDG)   | : Not applicable                         |
| Packing group (IATA)   | : Not applicable                         |
| Packing group (ADN)  | : Not applicable                         |
| Packing group (RID)  | : Not applicable                         |
| 14.5. Environmental hazards  |  |
| Dangerous for the environment  | : No                                     |
| Marine pollutant   | : No                                     |
| Other information  | : No supplementary information available |
| 14.6. Special precautions for user                                   |  |
| Overland transport   |  |
| Not applicable   |  |
| Transport by sea   |  |
| Not applicable   |  |
| Air transport  |  |
| Not applicable   |  |
| Inland waterway transport  |  |
| Not applicable   |  |
| Rail transport   |  |
| Not applicable   |  |
| 14.7. Transport in bulk according to Annex I                         | I of Marpol and the IBC Code             |

Not applicable

## **NND Reagent D**

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### **SECTION 15: Regulatory information**

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## **SECTION 16: Other information**

Safety Data Sheet applicable for regions

: GB - United Kingdom

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



| I.1. Product identifier Product form   | : Mixture  |                              |  |
|--|--|------------------------------|--|
| Product name   | : NND Reagent E  |                              |  |
| Product code   | : 511N   |                              |  |
| Product group  | : Trade product  |                              |  |
| .2. Relevant identified uses of  | the substance or mixture and uses advise   | ed against                   |  |
| .2.1. Relevant identified uses   |  |                              |  |
| lo additional information available  |  |                              |  |
| .2.2. Uses advised against   |  |                              |  |
| .3. Details of the supplier of the Supplier of the Seno Technology, Inc./ G-Bioscience   |  |                              |  |
| 800 Page Avenue<br>3132-1429 Saint Louis - United Stat<br>800-628-7730 - F 314-991-1504<br>echnical@GBiosciences.com - www   | es   |                              |  |
| .4. Emergency telephone num  |  |                              |  |
| Emergency number   | : Chemtrec <b>1-800-424-9300</b> (USA/Ca   | inada), <b>+1-703-527-</b> 3 | 3887 (Intl)  |
|  |  |                              |  |
|  |  |                              |  |
|  | ance or mixture  |                              |  |
|  |  |                              |  |
| .1. Classification of the subst  |  |                              |  |
| 2.1. Classification of the substant<br>Classification according to Regula<br>Not classified<br>Adverse physicochemical, human<br>To our knowledge, this product does   | tion (EC) No. 1272/2008 [CLP]  | d in accordance with         | n good occupational hygiene and sa                                   |
| A.1. Classification of the substant<br>Classification according to Regula<br>lot classified     Adverse physicochemical, human<br>fo our knowledge, this product does<br>ractice.  | tion (EC) No. 1272/2008 [CLP]<br>health and environmental effects  | d in accordance with         | n good occupational hygiene and sa                                   |
| exactice.<br>2.2. Label elements<br>abelling according to Regulation   | tion (EC) No. 1272/2008 [CLP]<br>health and environmental effects<br>not present any particular risk, provided it is handle  | d in accordance with         | n good occupational hygiene and sa                                   |
| Classification of the substant<br>Classification according to Regular<br>Not classified     Adverse physicochemical, human<br>To our knowledge, this product does<br>aractice.     C.2. Label elements     abelling according to Regulation<br>No labelling applicable   | tion (EC) No. 1272/2008 [CLP]<br>health and environmental effects<br>not present any particular risk, provided it is handle  | d in accordance with         | n good occupational hygiene and sa                                   |
| 2.1. Classification of the substant<br>Classification according to Regula<br>Not classified<br>Adverse physicochemical, human<br>To our knowledge, this product does<br>bractice.<br>2.2. Label elements   | tion (EC) No. 1272/2008 [CLP]<br>health and environmental effects<br>not present any particular risk, provided it is handle  | d in accordance with         | n good occupational hygiene and sa                                   |
| Adverse physicochemical, human<br>o our knowledge, this product does<br>ractice.     Adverse elements     abelling according to Regulation<br>lo labelling applicable     Adverse additional information available   | tion (EC) No. 1272/2008 [CLP]<br>health and environmental effects<br>not present any particular risk, provided it is handle<br>(EC) No. 1272/2008 [CLP]  | d in accordance with         | n good occupational hygiene and sa                                   |
| Adverse physicochemical, human<br>io our knowledge, this product does<br>ractice.     Abel elements     Abelling according to Regulation<br>to labelling applicable     A.3. Other hazards     Io additional information available     BECTION 3: Composition/in   | tion (EC) No. 1272/2008 [CLP]<br>health and environmental effects<br>not present any particular risk, provided it is handle<br>(EC) No. 1272/2008 [CLP]  | d in accordance with         | n good occupational hygiene and sa                                   |
| A.1. Classification of the substant<br>Classification according to Regular<br>lot classified     Adverse physicochemical, human<br>fo our knowledge, this product does<br>ractice.     A.2. Label elements     abelling according to Regulation<br>lo labelling applicable     A.3. Other hazards     lo additional information available     SECTION 3: Composition/in     A.1. Substances  | tion (EC) No. 1272/2008 [CLP]<br>health and environmental effects<br>not present any particular risk, provided it is handle<br>(EC) No. 1272/2008 [CLP]  | d in accordance with         | n good occupational hygiene and sa                                   |
| Classification of the substant<br>Classification according to Regular<br>Not classified     Adverse physicochemical, human<br>To our knowledge, this product does<br>aractice.     C.2. Label elements     Labelling according to Regulation<br>No labelling applicable     C.3. Other hazards   | tion (EC) No. 1272/2008 [CLP]<br>health and environmental effects<br>not present any particular risk, provided it is handle<br>(EC) No. 1272/2008 [CLP]  | d in accordance with         | n good occupational hygiene and sa                                   |
| A.1. Classification of the substant<br>Classification according to Regular<br>lot classified     Adverse physicochemical, human<br>o our knowledge, this product does<br>ractice.     A.2. Label elements     abelling according to Regulation<br>lo labelling applicable     .3. Other hazards     lo additional information available     SECTION 3: Composition/in     A.1. Substances     lot applicable     .2. Mixtures  | tion (EC) No. 1272/2008 [CLP]<br>health and environmental effects<br>not present any particular risk, provided it is handle<br>(EC) No. 1272/2008 [CLP]  | d in accordance with         | Classification according t<br>Regulation (EC) No.                    |
| .1. Classification of the substant<br>classification according to Regular<br>lot classified<br>deverse physicochemical, human<br>o our knowledge, this product does<br>ractice.<br>.2. Label elements<br>abelling according to Regulation<br>to labelling applicable<br>.3. Other hazards<br>lo additional information available<br>ECTION 3: Composition/in<br>.1. Substances<br>lot applicable<br>.2. Mixtures<br>Name   | tion (EC) No. 1272/2008 [CLP]<br>health and environmental effects<br>not present any particular risk, provided it is handle<br>(EC) No. 1272/2008 [CLP]<br>formation on ingredients  |                              | Classification according t   |
| .1. Classification of the substration according to Regular of classified and clas | tion (EC) No. 1272/2008 [CLP] health and environmental effects not present any particular risk, provided it is handle (EC) No. 1272/2008 [CLP] formation on ingredients  Product identifier (CAS-No.) 7664-38-2 (EC-No.) 231-633-2 | %                            | Classification according t<br>Regulation (EC) No.<br>1272/2008 [CLP] |
| A.1. Classification of the substant<br>Classification according to Regular<br>lot classified     Adverse physicochemical, human<br>o our knowledge, this product does<br>ractice.     A.2. Label elements     abelling according to Regulation<br>lo labelling applicable     A.3. Other hazards     lo additional information available     SECTION 3: Composition/in     A.1. Substances     lot applicable  | tion (EC) No. 1272/2008 [CLP] health and environmental effects not present any particular risk, provided it is handle (EC) No. 1272/2008 [CLP] formation on ingredients  Product identifier (CAS-No.) 7664-38-2 (EC-No.) 231-633-2 | <b>%</b><br>2.5 - 10         | Classification according t<br>Regulation (EC) No.<br>1272/2008 [CLP] |

| SECTION 4: First and measures          |  |
|--|--|
| 4.1. Description of first aid measures |  |
| First-aid measures after inhalation    | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact  | : Wash skin with plenty of water.                                |
| First-aid measures after eye contact   | : Rinse eyes with water as a precaution.                         |
| First-aid measures after ingestion     | : Call a poison center or a doctor if you feel unwell.           |
|  |  |

| 4.2. Most important symptoms and effects, both acute and delayed                |  |  |
|---|--|--|
| No additional information available   |  |  |
| 4.3. Indication of any immediate medical attention and special treatment needed |  |  |

Treat symptomatically.

OFOTION C. A

| SECTION 5: Firefighting measures<br>5.1. Extinguishing media |  |
|--|--|
| Suitable extinguishing media                                 | : Water spray. Dry powder. Foam. Carbon dioxide.   |
| 5.2. Special hazards arising from the substa                 | nce or mixture   |
| Hazardous decomposition products in case of fire             | : Toxic fumes may be released.   |
| 5.3. Advice for firefighters                                 |  |
| Protection during firefighting                               | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |

| 6.1. Personal precautions, protective equip                |   |
|--|---|
| 6.1.1. For non-emergency personnel<br>Emergency procedures | : Ventilate spillage area.  |
| 6.1.2. For emergency responders                            |   |
| Protective equipment                                       | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
| 6.2. Environmental precautions                             |   |
| Avoid release to the environment.                          |   |
| 6.3. Methods and material for containment a                | and cleaning up   |
| Methods for cleaning up                                    | : Take up liquid spill into absorbent material.   |
| Other information  | : Dispose of materials or solid residues at an authorized site.   |
| 6.4. Reference to other sections                           |   |
| For further information refer to section 13.               |   |

| SECTION 7: Handling and storage       | ge  |
|---------------------------------------|---|
| 7.1. Precautions for safe handling    |   |
| Precautions for safe handling         | : Ensure good ventilation of the work station. Wear personal protective equipment.                  |
| Hygiene measures                      | : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |
| 7.2. Conditions for safe storage, inc | luding any incompatibilities  |
| Storage conditions                    | : Store in a well-ventilated place. Keep cool.  |
| 7.3. Specific end use(s)              |   |

No additional information available

| SECTION 8: Exposure controls/personal protection                         |
|--|
| 8.1. Control parameters  |
| No additional information available                                      |
| 8.2. Exposure controls   |
| Appropriate engineering controls:  |
| Ensure good ventilation of the work station.                             |
| Hand protection:   |
| Protective gloves  |
| Eye protection:  |
| Safety glasses   |
| Skin and body protection:  |
| Wear suitable protective clothing  |
| Respiratory protection:  |
| In case of insufficient ventilation, wear suitable respiratory equipment |
| Environmental exposure controls:   |

Avoid release to the environment.

| (  | ······································ |
|--|--|
| <b>SECTION 9: Physical and chemical</b>    | properties                             |
| 9.1. Information on basic physical and c   | hemical properties                     |
| Physical state                             | : Liquid                               |
| Colour                                     | : No data available                    |
| Odour                                      | : No data available                    |
| Odour threshold                            | : No data available                    |
| рН   | : No data available                    |
| Relative evaporation rate (butylacetate=1) | : No data available                    |
| Melting point                              | : Not applicable                       |
| Freezing point                             | : No data available                    |
| Boiling point                              | : No data available                    |
| Flash point                                | : No data available                    |
| Auto-ignition temperature                  | : No data available                    |
| Decomposition temperature                  | : No data available                    |
| Flammability (solid, gas)                  | : Not applicable                       |
| Vapour pressure                            | : No data available                    |
| Relative vapour density at 20 °C           | : No data available                    |
| Relative density                           | : No data available                    |
| Solubility                                 | : No data available                    |
| Log Pow                                    | : No data available                    |
| Viscosity, kinematic                       | : No data available                    |
| Viscosity, dynamic                         | : No data available                    |
| Explosive properties                       | : No data available                    |
| Oxidising properties                       | : No data available                    |
| Explosive limits                           | : No data available                    |
| 9.2. Other information                     |  |
| No additional information available        |  |

No additional information available

| SECTION 10: Stability and reactivity   |
|--|
| 10.1. Reactivity   |
| The product is non-reactive under normal conditions of use, storage and transport. |
| 10.2. Chemical stability   |
| Stable under normal conditions.  |
| 10.3. Possibility of hazardous reactions   |
| No dangerous reactions known under normal conditions of use.                       |
| 10.4. Conditions to avoid  |
| None under recommended storage and handling conditions (see section 7).            |
| 10.5. Incompatible materials   |
| No additional information available  |
| 10.6. Hazardous decomposition products   |
| Hazardous decomposition products.  |

# SECTION 11: Toxicological information 11.1. Information on toxicological effects Acute toxicity (oral)

| This information on toxicological encote |                  |
|--|------------------|
| Acute toxicity (oral)                    | : Not classified |
| Acute toxicity (dermal)                  | : Not classified |
| Acute toxicity (inhalation)              | : Not classified |
| Skin corrosion/irritation                | : Not classified |
| Serious eye damage/irritation            | : Not classified |
| Respiratory or skin sensitisation        | : Not classified |
| Germ cell mutagenicity                   | : Not classified |
| Carcinogenicity                          | : Not classified |
| Reproductive toxicity                    | : Not classified |
| STOT-single exposure                     | : Not classified |
| STOT-repeated exposure                   | : Not classified |
| Aspiration hazard                        | : Not classified |
|  |                  |

| SECTION 12: Ecological information                                |  |
|---|--|
| 12.1. Toxicity  |  |
| Ecology - general   | : The product is not considered harmful to aquatic organisms nor to cause long-term<br>adverse effects in the environment. |
| Acute aquatic toxicity  | : Not classified   |
| Chronic aquatic toxicity  | : Not classified   |
| phosphoric acid, conc=85% (7664-38-2)                             |  |
| LC50 fish 1   | 138 mg/l (Pisces, Pure substance)  |
| 12.2. Persistence and degradability                               |  |
| phosphoric acid, conc=85% (7664-38-2)                             |  |
| Persistence and degradability                                     | Biodegradability: not applicable.  |
| Chemical oxygen demand (COD)                                      | Not applicable   |
| ThOD  | Not applicable   |
| BOD (% of ThOD)   | Not applicable   |
| 12.3. Bioaccumulative potential                                   |  |
| phosphoric acid, conc=85% (7664-38-2)                             |  |
| Bioaccumulative potential   | Does not contain bioaccumulative component(s).   |
| I2.4. Mobility in soil  |  |
| phosphoric acid, conc=85% (7664-38-2)                             |  |
| Ecology - soil  | No (test)data on mobility of the components available.   |
| 12.5. Results of PBT and vPvB assessment                          |  |
| No additional information available 12.6. Other adverse effects   |  |
| No additional information available                               |  |
| SECTION 12: Disposed considerations                               |  |
| SECTION 13: Disposal considerations 13.1. Waste treatment methods |  |
| Waste treatment methods   | : Waste treatment methods.   |
|   |  |
| SECTION 14: Transport information                                 |  |
| 14.1. UN number   |  |
| UN-No. (ADR)  | : Not applicable   |
| UN-No. (IMDG)   | : Not applicable   |
| UN-No. (IATA)   | : Not applicable   |
| UN-No. (ADN)  | : Not applicable   |
| UN-No. (RID)  | : Not applicable   |

| UN-No. (RID)                      | : Not applicable |  |
|-----------------------------------|------------------|--|
| 14.2. UN proper shipping name     |                  |  |
| Proper Shipping Name (ADR)        | : Not applicable |  |
| Proper Shipping Name (IMDG)       | : Not applicable |  |
| Proper Shipping Name (IATA)       | : Not applicable |  |
| Proper Shipping Name (ADN)        | : Not applicable |  |
| Proper Shipping Name (RID)        | : Not applicable |  |
| 14.3. Transport hazard class(es)  |                  |  |
| ADR                               |                  |  |
| Transport hazard class(es) (ADR)  | : Not applicable |  |
| IMDG                              |                  |  |
| Transport hazard class(es) (IMDG) | : Not applicable |  |
| ΙΑΤΑ                              |                  |  |
| Transport hazard class(es) (IATA) | : Not applicable |  |
| ADN                               |                  |  |
| Transport hazard class(es) (ADN)  | : Not applicable |  |
| RID                               |                  |  |
| Transport hazard class(es) (RID)  | : Not applicable |  |
|                                   |                  |  |

## NND Reagent E

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| 14.4. Packing group                |  |
|------------------------------------|--|
| Packing group (ADR)                | : Not applicable                         |
| Packing group (IMDG)               | : Not applicable                         |
| Packing group (IATA)               | : Not applicable                         |
| Packing group (ADN)                | : Not applicable                         |
| Packing group (RID)                | : Not applicable                         |
| 14.5. Environmental hazards        |  |
| Dangerous for the environment      | : No                                     |
| Marine pollutant                   | : No                                     |
| Other information                  | : No supplementary information available |
| 14.6. Special precautions for user |  |
| Overland transport                 |  |
| Not applicable                     |  |
| Transport by sea                   |  |
| Not applicable                     |  |
| Air transport                      |  |
| Not applicable                     |  |
| Inland waterway transport          |  |
| Not applicable                     |  |
| Rail transport                     |  |
| Natappliable                       |  |

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable

## SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

### 15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### **SECTION 16: Other information**

| Full text of H- and EUH-statements: |   |
|-------------------------------------|---|
| Eye Irrit. 2                        | Serious eye damage/eye irritation, Category 2 |
| Skin Corr. 1B                       | Skin corrosion/irritation, Category 1B        |
| Skin Irrit. 2                       | Skin corrosion/irritation, Category 2         |
| H314                                | Causes severe skin burns and eye damage.      |
| H315                                | Causes skin irritation.                       |
| H319                                | Causes serious eye irritation.                |

Safety Data Sheet applicable for regions

: GB - United Kingdom

### SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



## NND Reagent F

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| SECTION 1: Identification of th  |   |
|--|---|
|  | e substance/mixture and of the company/undertaking  |
| 1.1. Product identifier  | s substance/mixture and or the company/andertaking  |
| Product form   | : Mixture   |
| Product name   | : NND Reagent F   |
| Product code   | : 512N  |
| Product group  | : Trade product   |
| 5 1  |   |
| 1.2. Relevant identified uses of the   | substance or mixture and uses advised against   |
| 1.2.1. Relevant identified uses  |   |
| No additional information available  |   |
| 1.2.2. Uses advised against  |   |
| No additional information available  |   |
| 1.3. Details of the supplier of the s  | afatu data shoot  |
| Geno Technology, Inc./ G-Biosciences   | alely uala sheel  |
| 9800 Page Avenue   |   |
| 63132-1429 Saint Louis - United States   |   |
| T 800-628-7730 - F 314-991-1504  |   |
| technical@GBiosciences.com - www.GBi   |   |
| 1.4. Emergency telephone number<br>Emergency number  | : Chemtrec <b>1-800-424-9300</b> (USA/Canada), <b>+1-703-527-3887</b> (Intl)  |
| Emergency number   | . Chemilee 1-600-424-9300 (USA/Canada), +1-703-527-3667 (inu)   |
|  |   |
| SECTION 2: Hazards identification  |   |
| 2.1. Classification of the substanc  | e or mixture  |
| Classification according to Regulation   | (EC) No. 1272/2008 [CLP]  |
| Not classified   |   |
|  |   |
|  |   |
| Adverse physicochemical, human hea   |   |
|  | present any particular risk, provided it is handled in accordance with good occupational hygiene and safety   |
| practice. 2.2. Label elements  |   |
| 2.2. Laber elements  |   |
| Labelling according to Regulation (EC  | No. 1272/2008 [CLP]   |
| No labelling applicable  |   |
| 2.3. Other hazards   |   |
| No additional information available  |   |
|  |   |
| SECTION 3: Composition/infor   |   |
|  | mation on ingredients   |
| 3.1. Substances  | mation on ingredients   |
| Not applicable   | mation on ingredients   |
|  | mation on ingredients   |
| Not applicable 3.2. Mixtures   |   |
| Not applicable 3.2. Mixtures   | mation on ingredients   |
| Not applicable<br><b>3.2. Mixtures</b><br>This mixture does not contain any substa   | nces to be mentioned according to the criteria of section 3.2 of REACH annex II   |
| Not applicable<br><b>3.2. Mixtures</b><br>This mixture does not contain any substa<br><b>SECTION 4: First aid measures</b>   | nces to be mentioned according to the criteria of section 3.2 of REACH annex II   |
| Not applicable<br>3.2. Mixtures<br>This mixture does not contain any substa<br>SECTION 4: First aid measures<br>4.1. Description of first aid measures   | nces to be mentioned according to the criteria of section 3.2 of REACH annex II   |
| Not applicable<br>3.2. Mixtures<br>This mixture does not contain any substa<br>SECTION 4: First aid measures<br>4.1. Description of first aid measures<br>First-aid measures after inhalation  | nces to be mentioned according to the criteria of section 3.2 of REACH annex II<br>es<br>: Remove person to fresh air and keep comfortable for breathing.   |
| Not applicable<br>3.2. Mixtures<br>This mixture does not contain any substance<br>SECTION 4: First aid measures<br>4.1. Description of first aid measures<br>First-aid measures after inhalation<br>First-aid measures after skin contact  | nces to be mentioned according to the criteria of section 3.2 of REACH annex II es : Remove person to fresh air and keep comfortable for breathing. : Wash skin with plenty of water.   |
| Not applicable<br><b>3.2. Mixtures</b><br>This mixture does not contain any substance<br><b>SECTION 4: First aid measures</b><br><b>4.1. Description of first aid measures</b><br>First-aid measures after inhalation<br>First-aid measures after eye contact<br>First-aid measures after eye contact  | nces to be mentioned according to the criteria of section 3.2 of REACH annex II  es  : Remove person to fresh air and keep comfortable for breathing. : Wash skin with plenty of water. : Rinse eyes with water as a precaution.  |
| Not applicable<br>3.2. Mixtures<br>This mixture does not contain any substa<br>SECTION 4: First aid measures<br>4.1. Description of first aid measures<br>First-aid measures after inhalation<br>First-aid measures after eye contact<br>First-aid measures after eye contact<br>First-aid measures after ingestion  | nces to be mentioned according to the criteria of section 3.2 of REACH annex II   es  : Remove person to fresh air and keep comfortable for breathing. : Wash skin with plenty of water. : Rinse eyes with water as a precaution. : Call a poison center or a doctor if you feel unwell.  |
| Not applicable<br><b>3.2. Mixtures</b><br>This mixture does not contain any substance<br><b>SECTION 4: First aid measures</b><br><b>4.1. Description of first aid measures</b><br><b>5.1. Description of first aid measures</b><br><b>6.1. Description of first aid measures</b><br><b>6.1. Description of first aid measures</b><br><b>7. Instead measure</b> | nces to be mentioned according to the criteria of section 3.2 of REACH annex II   es  : Remove person to fresh air and keep comfortable for breathing. : Wash skin with plenty of water. : Rinse eyes with water as a precaution. : Call a poison center or a doctor if you feel unwell.  |
| Not applicable<br>3.2. Mixtures<br>This mixture does not contain any substance<br>SECTION 4: First aid measures<br>4.1. Description of first aid measures<br>4.1. Description of first aid measures<br>First-aid measures after inhalation<br>First-aid measures after eye contact<br>First-aid measures after eye contact<br>First-aid measures after ingestion<br>4.2. Most important symptoms and<br>No additional information available  | nces to be mentioned according to the criteria of section 3.2 of REACH annex II  res  : Remove person to fresh air and keep comfortable for breathing. : Wash skin with plenty of water. : Rinse eyes with water as a precaution. : Call a poison center or a doctor if you feel unwell. I effects, both acute and delayed  |
| Not applicable<br><b>3.2. Mixtures</b><br>This mixture does not contain any substance<br><b>SECTION 4: First aid measures</b><br><b>4.1. Description of first aid measures</b><br><b>4.1. Description of first aid measures</b><br>First-aid measures after inhalation<br>First-aid measures after eye contact<br>First-aid measures after eye contact<br>First-aid measures after ingestion<br><b>4.2. Most important symptoms and</b><br>No additional information available<br><b>4.3. Indication of any immediate m</b>  | nces to be mentioned according to the criteria of section 3.2 of REACH annex II   es  : Remove person to fresh air and keep comfortable for breathing. : Wash skin with plenty of water. : Rinse eyes with water as a precaution. : Call a poison center or a doctor if you feel unwell.  |
| Not applicable<br><b>3.2. Mixtures</b><br>This mixture does not contain any substance<br><b>SECTION 4: First aid measures</b><br><b>4.1. Description of first aid measures</b><br><b>4.1. Description of first aid measures</b><br>First-aid measures after inhalation<br>First-aid measures after eye contact<br>First-aid measures after eye contact<br>First-aid measures after ingestion<br><b>4.2. Most important symptoms and</b><br>No additional information available   | nces to be mentioned according to the criteria of section 3.2 of REACH annex II  res  : Remove person to fresh air and keep comfortable for breathing. : Wash skin with plenty of water. : Rinse eyes with water as a precaution. : Call a poison center or a doctor if you feel unwell. I effects, both acute and delayed  |
| Not applicable<br><b>3.2. Mixtures</b><br>This mixture does not contain any substance<br><b>SECTION 4: First aid measures</b><br><b>4.1. Description of first aid measures</b><br><b>4.1. Description of first aid measures</b><br>First-aid measures after inhalation<br>First-aid measures after eye contact<br>First-aid measures after eye contact<br>First-aid measures after ingestion<br><b>4.2. Most important symptoms and</b><br>No additional information available<br><b>4.3. Indication of any immediate measures</b><br>Treat symptomatically.   | nces to be mentioned according to the criteria of section 3.2 of REACH annex II  res  Remove person to fresh air and keep comfortable for breathing. Wash skin with plenty of water. Rinse eyes with water as a precaution. Call a poison center or a doctor if you feel unwell.  Heffects, both acute and delayed  edical attention and special treatment needed |
| Not applicable<br><b>3.2. Mixtures</b><br>This mixture does not contain any substance<br><b>SECTION 4: First aid measures</b><br><b>4.1. Description of first aid measures</b><br><b>4.1. Description of first aid measures</b><br>First-aid measures after inhalation<br>First-aid measures after eye contact<br>First-aid measures after eye contact<br>First-aid measures after ingestion<br><b>4.2. Most important symptoms and</b><br>No additional information available<br><b>4.3. Indication of any immediate measures</b><br>Treat symptomatically.<br><b>SECTION 5: Firefighting measures</b>  | nces to be mentioned according to the criteria of section 3.2 of REACH annex II  res  Remove person to fresh air and keep comfortable for breathing. Wash skin with plenty of water. Rinse eyes with water as a precaution. Call a poison center or a doctor if you feel unwell.  Heffects, both acute and delayed  edical attention and special treatment needed |
| Not applicable<br><b>3.2. Mixtures</b><br>This mixture does not contain any substance<br><b>SECTION 4: First aid measures</b><br><b>4.1. Description of first aid measures</b><br><b>4.1. Description of first aid measures</b><br>First-aid measures after inhalation<br>First-aid measures after eye contact<br>First-aid measures after eye contact<br>First-aid measures after ingestion<br><b>4.2. Most important symptoms and</b><br>No additional information available<br><b>4.3. Indication of any immediate measures</b><br>Treat symptomatically.   | nces to be mentioned according to the criteria of section 3.2 of REACH annex II  res  Remove person to fresh air and keep comfortable for breathing. Wash skin with plenty of water. Rinse eyes with water as a precaution. Call a poison center or a doctor if you feel unwell.  Heffects, both acute and delayed  edical attention and special treatment needed |

**5.2. Special hazards arising from the substance or mixture** Hazardous decomposition products in case of fire : Toxic fumes may be released.

## **NND Reagent F**

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

| according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 |   |  |
|--|---|--|
| 5.3. Advice for firefighters   |   |  |
| Protection during firefighting   | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.                    |  |
| SECTION 6: Accidental release meas   |   |  |
| 6.1. Personal precautions, protective equipment and emergency procedures                       |   |  |
| 6.1.1. For non-emergency personnel   |   |  |
| Emergency procedures   | : Ventilate spillage area.  |  |
| 6.1.2. For emergency responders  |   |  |
| Protective equipment   | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |  |
| 6.2. Environmental precautions   |   |  |
| Avoid release to the environment.  |   |  |
| 6.3. Methods and material for containmen   | it and cleaning up  |  |
| Methods for cleaning up  | : Take up liquid spill into absorbent material.   |  |
| Other information  | : Dispose of materials or solid residues at an authorized site.   |  |
| 6.4. Reference to other sections   |   |  |
| For further information refer to section 13.   |   |  |

| SECTION 7: Handling and storage                  |   |
|--|---|
| 7.1. Precautions for safe handling               |   |
| Precautions for safe handling                    | Ensure good ventilation of the work station. Wear personal protective equipment.                  |
| Hygiene measures                                 | Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |
| 7.2. Conditions for safe storage, including any  | y incompatibilities   |
| Storage conditions                               | Store in a well-ventilated place. Keep cool.  |
| 7.3. Specific end use(s)                         |   |
| No additional information available              |   |
|  |   |
| SECTION 8: Exposure controls/personal protection |   |
| 8.1. Control parameters                          |   |
| No additional information available              |   |
| 8.2. Exposure controls                           |   |
| Appropriate engineering controls:                |   |
| Ensure good ventilation of the work station.     |   |
| Hand protection:                                 |   |
| Protective gloves                                |   |

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Environmental exposure controls:

Avoid release to the environment.

| SECTION 9: Physical and chemical properties                |                     |  |
|--|---------------------|--|
| 9.1. Information on basic physical and chemical properties |                     |  |
| Physical state   | : Liquid            |  |
| Colour   | : No data available |  |
| Odour  | : No data available |  |
| Odour threshold  | : No data available |  |
| рН   | : No data available |  |
| Relative evaporation rate (butylacetate=1)                 | : No data available |  |
| Melting point  | : Not applicable    |  |
| Freezing point   | : No data available |  |
| Boiling point  | : No data available |  |

| Flash point                      | : No data available |
|----------------------------------|---------------------|
| Auto-ignition temperature        | : No data available |
| Decomposition temperature        | : No data available |
| Flammability (solid, gas)        | : Not applicable    |
| Vapour pressure                  | : No data available |
| Relative vapour density at 20 °C | : No data available |
| Relative density                 | : No data available |
| Solubility                       | : No data available |
| Log Pow                          | : No data available |
| Viscosity, kinematic             | : No data available |
| Viscosity, dynamic               | : No data available |
| Explosive properties             | : No data available |
| Oxidising properties             | : No data available |
| Explosive limits                 | : No data available |
| 9.2 Other information            |                     |

9.2. Other information No additional information available

| SECTION 10: Stability and reactivity   |  |  |
|--|--|--|
| 10.1. Reactivity   |  |  |
| The product is non-reactive under normal conditions of use, storage and transport. |  |  |
| 10.2. Chemical stability   |  |  |
| Stable under normal conditions.  |  |  |
| 10.3. Possibility of hazardous reactions   |  |  |
| No dangerous reactions known under normal conditions of use.                       |  |  |
| 10.4. Conditions to avoid  |  |  |
| None under recommended storage and handling conditions (see section 7).            |  |  |
| 10.5. Incompatible materials   |  |  |
| No additional information available  |  |  |
| 10.6. Hazardous decomposition products   |  |  |
| Hazardous decomposition products.  |  |  |
|  |  |  |

| <b>SECTION 11: Toxicological information</b> |                  |
|--|------------------|
| 11.1. Information on toxicological effects   |                  |
| Acute toxicity (oral)                        | : Not classified |
| Acute toxicity (dermal)                      | : Not classified |
| Acute toxicity (inhalation)                  | : Not classified |
| Skin corrosion/irritation                    | : Not classified |
| Serious eye damage/irritation                | : Not classified |
| Respiratory or skin sensitisation            | : Not classified |
| Germ cell mutagenicity                       | : Not classified |
| Carcinogenicity                              | : Not classified |
| Reproductive toxicity                        | : Not classified |
| STOT-single exposure                         | : Not classified |
| STOT-repeated exposure                       | : Not classified |
| Aspiration hazard                            | : Not classified |
|  |                  |

| SECTION 12: Ecological information       |  |
|--|--|
| 12.1. Toxicity                           |  |
| Ecology - general                        | : The product is not considered harmful to aquatic organisms nor to cause long-term<br>adverse effects in the environment. |
| Acute aquatic toxicity                   | : Not classified   |
| Chronic aquatic toxicity                 | : Not classified   |
| 12.2. Persistence and degradability      |  |
| No additional information available      |  |
| 12.3. Bioaccumulative potential          |  |
| No additional information available      |  |
| 12.4. Mobility in soil                   |  |
| No additional information available      |  |
| 12.5. Results of PBT and vPvB assessment |  |
| No additional information available      |  |

### 12.6. Other adverse effects No additional information available

| SECTION 13: Disposal considerations   |  |  |
|---|--|--|
| 13.1. Waste treatment methods   | Wheels has showed as the de-             |  |
| Waste treatment methods   | : Waste treatment methods.               |  |
| SECTION 44. Transport information   |  |  |
| SECTION 14: Transport information<br>In accordance with ADR / RID / IMDG / IATA / ADN |  |  |
| 14.1. UN number   |  |  |
| UN-No. (ADR)  | : Not applicable                         |  |
| UN-No. (IMDG)   | : Not applicable                         |  |
| UN-No. (IATA)   | : Not applicable                         |  |
| UN-No. (ADN)  | : Not applicable                         |  |
| UN-No. (RID)  | : Not applicable                         |  |
| 14.2. UN proper shipping name   |  |  |
| Proper Shipping Name (ADR)  | : Not applicable                         |  |
| Proper Shipping Name (IMDG)   | : Not applicable                         |  |
| Proper Shipping Name (IATA)   | : Not applicable                         |  |
| Proper Shipping Name (ADN)  | : Not applicable                         |  |
| Proper Shipping Name (RID)  | : Not applicable                         |  |
| 14.3. Transport hazard class(es)  |  |  |
| ADR   |  |  |
| Transport hazard class(es) (ADR)  | : Not applicable                         |  |
| IMDG  |  |  |
| Transport hazard class(es) (IMDG)   | : Not applicable                         |  |
| ΙΑΤΑ  |  |  |
| Transport hazard class(es) (IATA)   | : Not applicable                         |  |
| ADN   |  |  |
| Transport hazard class(es) (ADN)  | : Not applicable                         |  |
| RID   |  |  |
|   | · Net applicable                         |  |
| Transport hazard class(es) (RID)  | : Not applicable                         |  |
| 14.4. Packing group<br>Packing group (ADR)  | : Not applicable                         |  |
| Packing group (IMDG)  | : Not applicable                         |  |
| Packing group (IATA)  | : Not applicable                         |  |
| Packing group (ADN)   | : Not applicable                         |  |
| Packing group (RID)   | : Not applicable                         |  |
| 14.5. Environmental hazards   |  |  |
| Dangerous for the environment   | : No                                     |  |
| Marine pollutant  | : No                                     |  |
| Other information   | : No supplementary information available |  |
| 14.6. Special precautions for user  |  |  |
| Overland transport  |  |  |
| Not applicable  |  |  |
| Transport by sea  |  |  |
| Not applicable  |  |  |
| Air transport   |  |  |
| Not applicable  |  |  |
| Inland waterway transport   |  |  |
| Not applicable  |  |  |
| Rail transport  |  |  |
| Not applicable  |  |  |
|   | Lof Marpol and the IBC Code              |  |
| 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code              |  |  |

Not applicable

## **NND Reagent F**

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

### **SECTION 15: Regulatory information**

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## **SECTION 16: Other information**

Safety Data Sheet applicable for regions

: GB - United Kingdom

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.