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A Geno Technology, Inc. (USA) brand name

Safety Data Sheet

Cat. # 786-1055

Nuclear Fast Red Solution (Kernechtrot)

Size: 1L



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Nuclear Fast Red Solution (Kernechtrot)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Nuclear Fast Red Solution (Kernechtrot)
Product code : 075A

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Geno Technology, Inc./ G-Biosciences
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Saint Louis, 63132-1429 - United States
T 800-628-7730 - F 314-991-1504
technical@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: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation Category 1 H314 Causes severe skin burns and eye damage

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger
Hazard statements (GHS US) : H314 - Causes severe skin burns and eye damage
Precautionary statements (GHS US) : P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a poison center or doctor
P321 - Specific treatment (see supplemental first aid instruction on this label)
P363 - Wash contaminated clothing before reuse.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

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Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
aluminium sulfate	alaun / alum (=aluminiumsulfate) / aluminium sulfate, solid / aluminium sulphate / aluminium trisulfate / aluminiumsulfate / aluminiumsulfate, dry / aluminum alum / aluminum sulfate / aluminum sulphate / aluminum trisulfate / aluminum(III) sulfate / alunogenite / amostab / B768 / cace alum / cake alum / dialuminium sulfate / dialuminium sulphate / dialuminium trisulfate / dialuminium sulfate / dialuminium sulphate / dialuminium trisulfate / E520 (=aluminium sulfate) / fertosan / filter alum / Hi Soft C2 / KEMRO SAR / luminum alum / nalco 7530 / paper maker's alum / patent aluminium / pearl alum / pickle alum / sulfate of alumina / sulfatodialuminium disulfate / sulfuric acid aluminium salt / sulfuric acid aluminum (3+) salt (3:2) / sulfuric acid aluminum salt / sulfuric acid aluminum salt (Al ₂ (SO ₄) ₃) / sulfuric acid, aluminum salt (3:2) / tai-ace S150	(CAS-No.) 10043-01-3	5 - 10	Met. Corr. 1, H290 Skin Corr. 1, H314 Aquatic Acute 3, H402
disodium 1-amino-2,4-dihydroxy-9,10-dihydro-9,10-dioxoanthracene-3-sulphonate	2-anthracenesulfonic acid, 4-amino-9,10-dihydro-1,3-dihydroxy-9,10-dioxo-, monosodium salt / calcium red / disodium 1-amino-2,4-dihydroxy-9,10-dihydro-9,10-dioxoanthracene-3-sulfonate / disodium 1-amino-2,4-dihydroxy-9,10-dihydro-9,10-dioxoanthracene-3-sulphonate	(CAS-No.) 6409-77-4	0.05 - 0.5	Skin Irrit. 2, H315 Eye Irrit. 2, H319
thymol	1-hydroxy-3-methyl-6-isopropylbenzol / 1-methyl-3-hydroxy-4-isopropylbenzene / 2-hydroxy-1-isopropyl-4-methylbenzene / 2-hydroxy-1-isopropyl-4-methylbenzol / 2-isopropyl-5-methylphenol / 2-isopropyl-5-methyl-phenol / 3-hydroxy-1-methyl-4-isopropylbenzene / 3-hydroxy-4-isopropyl-1-methylbenzene / 3-hydroxy-para-cymene / 3-hydroxy-para-cymol / 3-hydroxy-p-cymene / 3-hydroxy-p-cymol / 3-methyl-6-isopropylphenol / 3-para-cymenol / 3-para-cy-menol / 3-p-cymenol / 3-p-cy-menol / 5-methyl-2-(1-methylethyl)phenol / 5-methyl-2-isopropyl-1-phenol / 5-methyl-2-isopropylphenol / 6-isopropyl-3-methylphenol / 6-isopropyl-m-cresol / 6-isopropyl-meta-cresol / FEMA NUMBER 3066 / isopropyl cresol / isopropyl-cresol / isopropyl-m-cresol / isopropyl-meta-cresol / m-cresol, 6-isopropyl- / meta-cresol, 6-isopropyl- / meta-thymol / m-thymol / O-4744 / para-cymen-3-ol / para-cymene, 3-hydroxy- / p-cymen-3-ol / p-cymene, 3-hydroxy- / phenol, 2-isopropyl-5-methyl- / phenol, 5-methyl-2-(1-methylethyl)- / PST23475 / T-185 / thyme camphor / thymic acid / thymol	(CAS-No.) 89-83-8	0.05 - 0.5	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Aquatic Chronic 2, H411

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

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First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact	: Burns.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray.

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

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. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray. Wear personal protective equipment.
Hygiene measures	: Wash contaminated clothing before reuse. 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 incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available

aluminium sulfate (10043-01-3)

No additional information available

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disodium 1-amino-2,4-dihydroxy-9,10-dihydro-9,10-dioxoanthracene-3-sulphonate (6409-77-4)

No additional information available

thymol (89-83-8)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: No data available
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

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.

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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) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

aluminium sulfate (10043-01-3)	
LD50 oral rat	2000 - 5000 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Female, Experimental value of similar product, Oral, 14 day(s))
LD50 dermal rabbit	> 5000 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value of similar product, Dermal, 14 day(s))
LC50 inhalation rat (mg/l)	> 5.09 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Read-across, Inhalation (aerosol), 3 day(s))
ATE US (oral)	2000 mg/kg body weight

thymol (89-83-8)	
ATE US (oral)	500 mg/kg body weight

Skin corrosion/irritation : Causes severe skin burns and eye damage.
Serious eye damage/irritation : Eye damage, category 1, implicit
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : Not classified

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified
Viscosity, kinematic : No data available

Symptoms/effects after skin contact : Burns.
Symptoms/effects after eye contact : Serious damage to eyes.
Symptoms/effects after ingestion : Burns.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

aluminium sulfate (10043-01-3)	
LC50 fish 1	> 87.5 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	> 200 mg/l (Equivalent or similar to OECD 202, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)

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aluminium sulfate (10043-01-3)	
ErC50 (algae)	14 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

12.2. Persistence and degradability

aluminium sulfate (10043-01-3)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
disodium 1-amino-2,4-dihydroxy-9,10-dihydro-9,10-dioxoanthracene-3-sulphonate (6409-77-4)	
Persistence and degradability	Biodegradability in water: no data available.
thymol (89-83-8)	
Persistence and degradability	Readily biodegradable in water.
Chemical oxygen demand (COD)	2.69 g O ₂ /g substance
ThOD	2.76 g O ₂ /g substance

12.3. Bioaccumulative potential

aluminium sulfate (10043-01-3)	
Bioaccumulative potential	No bioaccumulation data available.
disodium 1-amino-2,4-dihydroxy-9,10-dihydro-9,10-dioxoanthracene-3-sulphonate (6409-77-4)	
Bioaccumulative potential	No bioaccumulation data available.
thymol (89-83-8)	
Log Pow	3.3 - 3.4

12.4. Mobility in soil

aluminium sulfate (10043-01-3)	
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Waste treatment methods.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

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SECTION 15: Regulatory information

15.1. US Federal regulations

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Not listed on the United States TSCA (Toxic Substances Control Act) inventory

aluminium sulfate (10043-01-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Not subject to reporting requirements of the United States SARA Section 313

CERCLA RQ

5000 lb

disodium 1-amino-2,4-dihydroxy-9,10-dihydro-9,10-dioxoanthracene-3-sulphonate (6409-77-4)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

thymol (89-83-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

aluminium sulfate (10043-01-3)

Listed on the Canadian DSL (Domestic Substances List)

disodium 1-amino-2,4-dihydroxy-9,10-dihydro-9,10-dioxoanthracene-3-sulphonate (6409-77-4)

Listed on the Canadian DSL (Domestic Substances List)

thymol (89-83-8)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

National regulations

No additional information available

15.3. US State regulations

SECTION 16: Other information

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Revision date : 05/11/2017

Full text of H-phrases:

H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H319	Causes serious eye irritation
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects

SDS US (GHS HazCom 2012)

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.