



Safety Data Sheet

Cat. # RC-152

Potassium Iodide, KI

Size: 1kg





potassium iodide

Safety Data Sheet

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

Date of issue: 08/06/2015

Revision date: 05/11/2017

Version: 7.1

SECTION 1: Identification

1.1. Identification

| | |
|----------------|--|
| Product form | : Substance |
| Substance name | : potassium iodide |
| CAS-No. | : 7681-11-0 |
| Product code | : 258A_P319 |
| Formula | : KI |
| Synonyms | : antistrumin / asmofug E / ceiododin / hydrochloric acid, potassium / iodic acid, potassium salt / iodostin / jodid / K1-N / kali iodide / KI-N / knollide / NSC 77362 / pherajod / potassium iodide, briquettes / potassium monoiodide / potide / reagent A - chlorine (test kit) / Thyro-Block / thyroiod |
| BIG No | : 10621 |

1.2. Recommended use and restrictions on use

| | |
|------------------------------|--|
| Use of the substance/mixture | : Photographic chemical Food industry: auxiliary substance Reagent Pharmaceutical product: component Veterinary medicine |
|------------------------------|--|

1.3. Supplier

Geno Technology, Inc./ G-Biosciences
9800 Page Avenue
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

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labeling

No labeling applicable

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

| Name | Common Name (Synonyms) | Product identifier | % | GHS US classification |
|--|--|---------------------|-----|-----------------------|
| potassium iodide (Main constituent) | antistrumin / asmofug E / ceiododin / hydrochloric acid, potassium / iodic acid, potassium salt / iodostin / jodid / K1-N / kali iodide / KI-N / knollide / NSC 77362 / pherajod / potassium iodide, briquettes / potassium monoiodide / potide / reagent A - chlorine (test kit) / Thyro-Block / thyroiod | (CAS-No.) 7681-11-0 | 100 | Not classified |

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

3.2. Mixtures

Not applicable

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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. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: 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 : Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.
- First-aid measures after eye contact : Rinse with water. 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. Give milk to drink. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

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

- Symptoms/effects after inhalation : No effects known.
- Symptoms/effects after skin contact : Slight irritation.
- Symptoms/effects after eye contact : Slight irritation.
- Symptoms/effects after ingestion : No effects known.
- Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Body temperature rise. Gastrointestinal complaints. Feeling of weakness. Loss of weight. Sleeplessness. Skin rash/inflammation. Irritation of the nasal mucous membranes. Runny nose. Respiratory difficulties. Possible oedema of the upper respiratory tract. Possible inflammation of the respiratory tract. Possible laryngeal spasm/oedema. Increased salivation. Inflammation/affection of the gums. Inflammation/damage of the eye tissue. Lacrimation. Thyroid enlargement/affection. Enlargement of the lymph glands.

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 : Adapt extinguishing media to the environment.
- Unsuitable extinguishing media : No unsuitable extinguishing media known.

5.2. Specific hazards arising from the chemical

- Fire hazard : DIRECT FIRE HAZARD: Non combustible. INDIRECT FIRE HAZARD: Reactions involving a fire hazard: see "Reactivity Hazard".
- Explosion hazard : DIRECT EXPLOSION HAZARD: No data available on direct explosion hazard. INDIRECT EXPLOSION HAZARD: Reactions with explosion hazards: see "Reactivity Hazard".

5.3. Special protective equipment and precautions for fire-fighters

- Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighbourhood close doors and windows.
- Firefighting instructions : No specific fire-fighting instructions required.
- 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. Safety glasses. Protective clothing. Dust cloud production: compressed air/oxygen apparatus. Reactivity hazard: compressed air/oxygen apparatus. See "Material-Handling" to select protective clothing.
- Emergency procedures : Mark the danger area. Prevent dust cloud formation. No naked flames. Wash contaminated clothes. In case of hazardous reactions: keep upwind. In case of reactivity hazard: consider evacuation.
- Measures in case of dust release : In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows.

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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. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray. If reacting: dilute toxic gas/vapour with water spray. Take account of toxic/corrosive precipitation water.

Methods for cleaning up : Stop dust cloud by covering with sand/earth. Scoop solid spill into closing containers. See "Material-handling" for suitable container materials. Clean contaminated surfaces with an excess 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 : Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Avoid raising dust. Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

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 incompatibilities

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

Storage temperature : 15 - 30 °C

Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources.

Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. (strong) acids. metals. water/moisture.

Storage area : Store in a cool area. Store in a dry area. Store in a dark area. Limited time of storage. Store only in a limited quantity. May be stored under argon. Keep locked up. Meet the legal requirements. Store at room temperature.

Special rules on packaging : SPECIAL REQUIREMENTS: hermetical. watertight. dry. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials : SUITABLE MATERIAL: cardboard. stainless steel. plastics. glass. MATERIAL TO AVOID: aluminium. copper. tin. nickel. bronze.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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USA - ACGIH - Occupational Exposure Limits

| | |
|-----------------|--|
| ACGIH TWA (ppm) | 0.01 ppm (Iodides; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value; Inhalable fraction and vapor) |
|-----------------|--|

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

Materials for protective clothing:

GIVE GOOD RESISTANCE: natural rubber. neoprene. nitrile rubber. PVC. plastics

Hand protection:

Gloves

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Eye protection:

Safety glasses

Skin and body protection:

Protective clothing

Respiratory protection:

Dust production: dust mask with filter type P3

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|--|
| Physical state | : Solid |
| Appearance | : Crystalline solid. Crystalline powder. Grains. Little spheres. |
| Color | : Colourless to white On exposure to air: yellow to brown |
| Odor | : Odourless |
| Odor threshold | : No data available |
| pH | : 6.0 - 9.0 (5.0 %) |
| pH solution | : 5 % |
| Melting point | : 681 °C |
| Freezing point | : Not applicable |
| Boiling point | : 1330 °C |
| Flash point | : Not applicable |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : Non flammable. |
| Vapor pressure | : < 0.01 hPa (20 °C) |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : 3.1 |
| Specific gravity / density | : 3125 kg/m ³ |
| Molecular mass | : 166.01 g/mol |
| Solubility | : Soluble in water. Soluble in glycerol. Soluble in ammonia. Water: 144 g/100ml Ethanol: 2 g/100ml Acetone: 1.3 g/100ml |
| Log Pow | : No data available |
| Auto-ignition temperature | : Not applicable |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosion limits | : Not applicable |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |

9.2. Other information

| | |
|------------------|------------------|
| VOC content | : Not applicable |
| Other properties | : Hygroscopic. |

SECTION 10: Stability and reactivity

10.1. Reactivity

On burning: release of harmful/irritant gases/vapours (iodine). Decomposes slowly on exposure to light and on exposure to air: release of harmful/irritant gases/vapours (iodine). Reacts violently on exposure to (strong) acids: release of corrosive products (hydrogen iodide). Reacts violently with (strong) oxidizers: release of harmful/irritant gases/vapours (iodine).

10.2. Chemical stability

Unstable on exposure to light. Unstable on exposure to air. Hygroscopic.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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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

| potassium iodide (7681-11-0) | |
|------------------------------|------------------------|
| LD50 oral rat | 2779 mg/kg (Rat) |
| LD50 dermal rabbit | 3160 mg/kg (Rabbit) |
| ATE US (oral) | 2779 mg/kg body weight |
| ATE US (dermal) | 3160 mg/kg body weight |

Skin corrosion/irritation : Not classified
pH: 6.0 - 9.0 (5.0 %)

Serious eye damage/irritation : Not classified
pH: 6.0 - 9.0 (5.0 %)

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 inhalation : No effects known.

Symptoms/effects after skin contact : Slight irritation.

Symptoms/effects after eye contact : Slight irritation.

Symptoms/effects after ingestion : No effects known.

Chronic symptoms : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Body temperature rise. Gastrointestinal complaints. Feeling of weakness. Loss of weight. Sleeplessness. Skin rash/inflammation. Irritation of the nasal mucous membranes. Runny nose. Respiratory difficulties. Possible oedema of the upper respiratory tract. Possible inflammation of the respiratory tract. Possible laryngeal spasm/oedema. Increased salivation. Inflammation/affection of the gums. Inflammation/damage of the eye tissue. Lacrimation. Thyroid enlargement/affection. Enlargement of the lymph glands.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).

Ecology - water : Mild water pollutant (surface water). Groundwater pollutant. Not harmful to fishes (LC50(96h) >1000 mg/l). Slightly harmful to invertebrates (Daphnia) (EC50 (48h): 100 - 1000 mg/l). Not harmful to algae (EC50 (72h) >1000 mg/l).

| potassium iodide (7681-11-0) | |
|------------------------------|---------------------------|
| LC50 fish 1 | 1788.85 mg/l (LC50; 96 h) |
| EC50 Daphnia 1 | 483.68 mg/l (LC50; 48 h) |

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12.2. Persistence and degradability

| potassium iodide (7681-11-0) | |
|---------------------------------|-----------------------------------|
| Persistence and degradability | Biodegradability: not applicable. |
| Biochemical oxygen demand (BOD) | Not applicable |
| Chemical oxygen demand (COD) | Not applicable |
| ThOD | Not applicable |

12.3. Bioaccumulative potential

| potassium iodide (7681-11-0) | |
|------------------------------|----------------------|
| Bioaccumulative potential | Not bioaccumulative. |

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

| | |
|--|---|
| Waste treatment methods | : Waste treatment methods. |
| Product/Packaging disposal recommendations | : Remove waste in accordance with local and/or national regulations. Recycle/reuse. Precipitate/make insoluble. Remove to an authorized dump (Class I). Treat using the best available techniques before discharge into drains or the aquatic environment. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants. |
| Additional information | : LWCA (the Netherlands): KGA category 05. Can be considered as non hazardous waste according to Directive 2008/98/EC. |

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Other information : No supplementary information available.

Transportation of Dangerous Goods

Transport by sea

Air transport

SECTION 15: Regulatory information

15.1. US Federal regulations

| potassium iodide (7681-11-0) |
|---|
| Not listed on the United States TSCA (Toxic Substances Control Act) inventory |

15.2. International regulations

CANADA

EU-Regulations

National regulations

No additional information available

15.3. US State regulations

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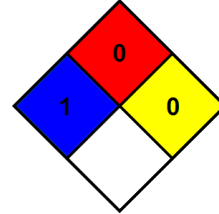
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SECTION 16: Other information

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| | |
|--------------------|---|
| Revision date | : 05/11/2017 |
| NFPA health hazard | : 1 - Materials that, under emergency conditions, can cause significant irritation. |
| NFPA fire hazard | : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. |
| NFPA reactivity | : 0 - Material that in themselves are normally stable, even under fire conditions. |



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.