

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS

Printing date: 01.08.2016

Revision: 01.08.2016

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

· **Trade name:** 25% Potassium Iodide in Monoethylene Glycol

· **Other product identifiers:** No other identifiers

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.

· **Application of the substance / the mixture:** Industrial uses.

1.3 Details of the supplier of the Safety Data Sheet

· **Manufacturer/Supplier:**

Iofina Chemical
1025 Mary Laidley Drive
Covington, KY 41017
Phone: 859-356-8000

1.4 Emergency telephone number:

ChemTel Inc.
(800)255-3924, +1 (813)248-0585



SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

· **Classification according to Regulation (EC) No 1272/2008**

Classifications listed are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).

Acute Tox. 4 H302 Harmful if swallowed.

STOT RE 1 H372 Causes damage to the kidneys and the thyroid through prolonged or repeated exposure. Route of exposure: Oral.

2.2 Label elements

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the Globally Harmonized System within the United States.

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labelling:**

ethylene glycol
potassium iodide

· **Hazard statements**

H302 Harmful if swallowed.

H372 Causes damage to the kidneys and the thyroid through prolonged or repeated exposure. Route of exposure: Oral.

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Precautionary statements

- P260 Do not breathe mist/vapours/spray.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P314 Get medical advice/attention if you feel unwell.
- P330 Rinse mouth.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards** There are no other hazards not otherwise classified that have been identified.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures
Components:

CAS: 107-21-1 EINECS: 203-473-3 Index number: 603-027-00-1	ethylene glycol	 STOT RE 2, H373  Acute Tox. 4, H302	70-80%
CAS: 7681-11-0 EINECS: 231-659-4	potassium iodide	 STOT RE 1, H372	20-30%

Additional information:

For the wording of the listed Hazard Statements refer to section 16.
For the listed ingredient(s), the identity and/or exact percentages are being withheld as a trade secret.

SECTION 4: First aid measures

4.1 Description of first aid measures

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Immediately rinse with water.
If skin irritation continues, consult a doctor.

· **After eye contact:**

Rinse opened eye for several minutes under running water.
Remove contact lenses if worn.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

Cramp
Nausea
Profuse sweating
Coughing

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Slight irritant effect on eyes.

Slight irritant effect on skin and mucous membranes.

Acidosis

Vomiting.

Diarrhea.

Disorientation

· **Hazards:**

Harmful if swallowed.

Danger of disturbed cardiac rhythm.

Danger of convulsion.

Causes damage to the kidneys and the thyroid through prolonged or repeated exposure. Route of exposure: Oral.

· **4.3 Indication of any immediate medical attention and special treatment needed**

Contains iodides, ethylene glycol. Consult literature for specific antidotes.

May produce a thyrotoxic effect.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.· **For safety reasons unsuitable extinguishing agents:** None.

· **5.2 Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

· **5.3 Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

· **Additional information:** No further relevant information available.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Use respiratory protective device against the effects of fumes/dust/aerosol.

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions** Avoid release to the environment.

· **6.3 Methods and material for containment and cleaning up**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Send for recovery or disposal in suitable receptacles.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Prevent formation of aerosols.
- Use only in well ventilated areas.

Information about fire - and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

- Avoid storage near extreme heat, ignition sources or open flame.

Information about storage in one common storage facility:

- Store away from oxidising agents.
- Store away from foodstuffs.

Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

107-21-1 ethylene glycol

IOELV (EU)	Short-term value: 104 mg/m ³ , 40 ppm Long-term value: 52 mg/m ³ , 20 ppm Skin
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TLV (USA)	Short-term value: NIC-127* NIC-10** mg/m ³ , NIC-50* ppm Long-term value: NIC-63,5* mg/m ³ , NIC-25* ppm Ceiling limit: (100) mg/m ³ (H); *inh. fraction + vapor, P:**inh. fraction, H
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7681-11-0 potassium iodide

TLV (USA)	Long-term value: 0,01* ppm *as inhalable fraction and vapor
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- **DNELs:** No further relevant information available.
- **PNECs:** No further relevant information available.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

- The usual precautionary measures are to be adhered to when handling chemicals.
- Keep away from foodstuffs, beverages and feed.
- Avoid contact with the eyes.
- Avoid close or long term contact with the skin.

Respiratory protection:

- Not required under normal conditions of use.
- Use suitable respiratory protective device when high concentrations are present.
- Use suitable respiratory protective device when aerosol or mist is formed.

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For spills, respiratory protection may be advisable.

· **Protection of hands:**

Gloves are advised for repeated or prolonged contact.

Wear protective gloves to handle contents of damaged or leaking units.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Eye protection:**



Safety glasses

· **Body protection:** Protective work clothing

· **Limitation and supervision of exposure into the environment:** No special requirements.

· **Risk management measures:** No special requirements.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **Appearance**

Form: Liquid

Colour: Clear

· **Odour:** Slightly sweetish

· **Odour threshold:** Not determined.

· **pH-value at 20 °C (68 °F):** 8

· **Melting point/Melting range:** <0 °C (<32 °F)

· **Boiling point/Boiling range:** >100 °C (>212 °F)

· **Flash point:** >93 °C (>199 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Auto/Self-ignition temperature:** Not determined.

· **Decomposition temperature:** Not determined.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits**

Lower: Not determined.

Upper: Not determined.

· **Vapour pressure:** Not determined.

· **Density:**

Relative density: 1,0-1,5

Vapour density: Not determined.

Evaporation rate: Not determined.

· **Solubility in / Miscibility with water:**

Fully miscible.

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- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
Keep away from heat and direct sunlight.
- **10.3 Possibility of hazardous reactions**
Reacts with acids, alkalis and oxidising agents.
Reacts with organic materials.
Toxic fumes may be released if heated above the decomposition point.
Contact with acids releases toxic gases.
- **10.4 Conditions to avoid** Excessive heat.
- **10.5 Incompatible materials** Contact with acids liberates toxic gas.
- **10.6 Hazardous decomposition products**
Carbon monoxide and carbon dioxide
Iodine compounds

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

- **Acute toxicity:**
Harmful if swallowed.

· LD/LC50 values relevant for classification:

107-21-1 ethylene glycol

Dermal	LD50	9530 mg/kg (rabbit)
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7681-11-0 potassium iodide

Oral	LD50	3118 mg/kg (rat)
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- **Primary irritant effect**
- **Skin corrosion/irritation:** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation:** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.

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- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

- **NTP (National Toxicology Program):**

None of the ingredients are listed.

- **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

- **Probable routes of exposure:**

Ingestion.

Inhalation

Eye contact.

Skin contact.

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

- **Carcinogenicity:** Based on available data, the classification criteria are not met.

- **Reproductive toxicity:** Based on available data, the classification criteria are not met.

- **STOT-single exposure:** Based on available data, the classification criteria are not met.

- **STOT-repeated exposure:**

Causes damage to the kidneys and the thyroid through prolonged or repeated exposure. Route of exposure: Oral.

- **Aspiration hazard:** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **12.2 Persistence and degradability** No further relevant information available.

- **12.3 Bioaccumulative potential** No further relevant information available.

- **12.4 Mobility in soil** No further relevant information available.

- **Additional ecological information:**

- **General notes:** Avoid transfer into the environment.

- **12.5 Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**

- **Recommendation**

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|--|-----------------|
| · 14.1 UN-Number
· DOT, ADR, IMDG, IATA | Not Regulated |
| · 14.2 UN proper shipping name
· DOT, ADR, IMDG, IATA | Not Regulated |
| · 14.3 Transport hazard class(es)
· DOT, ADR, IMDG, IATA
· Class | Not Regulated |
| · 14.4 Packing group
· DOT, ADR, IMDG, IATA | Not Regulated |
| · 14.5 Environmental hazards:
· Marine pollutant: | No |
| · 14.6 Special precautions for user | 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**
- United States (USA)
- SARA

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

107-21-1 | ethylene glycol

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65 (California):

· Chemicals known to cause cancer:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

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Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

107-21-1 ethylene glycol

Carcinogenic Categories
EPA (Environmental Protection Agency)

None of the ingredients are listed.

IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients are listed.

Canadian Domestic Substances List (DSL)

All ingredients are listed.

Other regulations, limitations and prohibitive regulations
Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients are listed.

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H302 Harmful if swallowed.

H372 Causes damage to the kidneys and the thyroid through prolonged or repeated exposure. Route of exposure: Oral.

H373 May cause damage to the kidneys and the thyroid through prolonged or repeated exposure. Route of exposure: Oral.

Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

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OSHA: Occupational Safety & Health

LDLo: Lowest Lethal Dose Observed

Acute Tox. 4: Acute toxicity – Category 4

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Sources

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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