INTERCOOL OP-100

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

Trade name : INTERCOOL OP-100

CAS No : Mixture

Product code : 22820

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Heat Transfer Fluid

1.3. Details of the supplier of the safety data sheet

Interstate Chemical Company, Inc.
2797 Freedland Road
Hermitage, PA 16148-0210 - United States
T 800-422-2436 - F (724) 509-1015
herm-eh&s@interstatechemical.com - www.interstatechemical.com

1.4. Emergency telephone number

Emergency number : For 24-Hour Emergency Information Call Chemtrec: +1 (800) 424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Acute toxicity (oral) H302
Category 4

Full text of H statements : see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS07

Signal word (GHS-US) : Warning

Contains : ethylene glycol

Hazard statements (GHS-US) : H302 - Harmful if swallowed

Precautionary statements (GHS-US) : P264 - Wash hands, forearms and face thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P301+P312 - If swallowed: Call a doctor or poison center if you feel unwell
P330 - Rinse mouth
P501 - Dispose of contents/container to a hazardous or special waste collection point, an approved waste disposal plant, an authorized waste collection point, an industrial incineration plant

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
ethylene glycol	(CAS No) 107-21-1	80 - 100	Acute Tox. 4 (Oral), H302
CORROSION INHIBITORS AND pH BUFFERS	(CAS No) Trade Secret	1 - 10	Not classified
LIQUID DYE	(CAS No) Mixture	< 1	Not classified

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	:	Keep only in the original container in a cool, well ventilated place away from : Sources of ignition. Keep container closed when not in use.
Incompatible products	:	Strong bases. Strong acids.
Incompatible materials	:	Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ethylene glycol (107-21-1)		
ACGIH	ACGIH Ceiling (mg/m³)	100 mg/m³
ACGIH	Remark (ACGIH)	URT & eye irr

CORROSION INHIBITORS AND pH BUFFERS (Trade Secret)
Not applicable

LIQUID DYE (Mixture)
Not applicable

8.2. Exposure controls

Personal protective equipment	:	Avoid all unnecessary exposure.
Hand protection	:	Wear protective gloves.
Eye protection	:	Chemical goggles or safety glasses.
Respiratory protection	:	Wear appropriate mask.
Other information	:	Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Clear, Yellow Liquid.
Color	:	Light yellow
Odor	:	characteristic
Odor threshold	:	No data available
pH	:	No data available
Melting point	:	-13 °C
Freezing point	:	No data available
Boiling point	:	197 °C
Critical temperature	:	372 °C
Flash point	:	111 °C
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	No data available
Explosion limits	:	3 - 15 vol %
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Vapor pressure	:	0.07 hPa
Vapor pressure at 50 °C	:	1.1 hPa
Relative density	:	1.1
Relative vapor density at 20 °C	:	2.1
Specific gravity / density	:	1130 kg/m³
Molecular mass	:	62.07 g/mol
Solubility	:	Soluble in water. Soluble in ethanol. Soluble in acetone. Soluble in acetic acid. Soluble in glycerol. Soluble in pyridine. Ethanol: Complete Acetone: Complete

Log Pow	:	-1.34 (Experimental value)
Auto-ignition temperature	:	398 °C
Decomposition temperature	:	> 500 °C
Viscosity	:	No data available
Viscosity, kinematic	:	18.86 mm²/s (20 °C)
Viscosity, dynamic	:	0.021 Pa.s (20 °C)

9.2. Other information

Specific conductivity	:	116 µS/m
Saturation concentration	:	0.31 g/m³
VOC content	:	0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

INTERCOOL OP-100 (Mixture)	
ATE US (oral)	531.915 mg/kg body weight

ethylene glycol (107-21-1)	
LD50 oral rat	> 5000 mg/kg (Rat; Literature study)
ATE US (oral)	500.000 mg/kg body weight

Skin corrosion/irritation	:	Not classified
Serious eye damage/irritation	:	Not classified
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
Potential Adverse human health effects and symptoms	:	Based on available data, the classification criteria are not met. Harmful if swallowed.
Symptoms/injuries after ingestion	:	Swallowing a small quantity of this material will result in serious health hazard.

SECTION 12: Ecological information

12.1. Toxicity

ethylene glycol (107-21-1)	
LC50 fish 1	53000 mg/l (96 h; Pimephales promelas; Static system)
EC50 Daphnia 1	> 10000 mg/l (24 h; Daphnia magna)
LC50 fish 2	40761 mg/l (96 h; Salmo gairdneri (Oncorhynchus mykiss); Static system)
Threshold limit algae 1	> 10000 mg/l (168 h; Scenedesmus quadricauda)
Threshold limit algae 2	2000 mg/l (192 h; Microcystis aeruginosa)

12.2. Persistence and degradability

INTERCOOL OP-100 (Mixture)	
Persistence and degradability	Not established.

ethylene glycol (107-21-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0.47 g O_2/g substance
Chemical oxygen demand (COD)	1.24 g O_2/g substance
ThOD	1.29 g O_2/g substance
BOD (% of ThOD)	0.36 % ThOD

12.3. Bioaccumulative potential

INTERCOOL OP-100 (Mixture)	
Log Pow	-1.34 (Experimental value)
Bioaccumulative potential	Not established.

ethylene glycol (107-21-1)	
BCF fish 1	10 (72 h; Leuciscus idus)
BCF other aquatic organisms 1	0.21 - 0.6 (Procambarus sp.; Chronic)
BCF other aquatic organisms 2	190 (24 h; Algae)
Log Pow	-1.34 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

ethylene glycol (107-21-1)	
Surface tension	0.048 N/m (20 °C)

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to an approved hazardous waste plant and/or drum reconditioner.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III

UN-No.(DOT) : UN3082

Proper Shipping Name (DOT) : Environmentally hazardous substances, liquid, n.o.s.

Class (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140

Hazard labels (DOT)	:	9 - Class 9 (Miscellaneous dangerous materials) 
Packing group (DOT)	:	III - Minor Danger
DOT Packaging Non Bulk (49 CFR 173.xxx)	:	203
DOT Packaging Bulk (49 CFR 173.xxx)	:	241
DOT Symbols	:	G - Identifies PSN requiring a technical name
DOT Special Provisions (49 CFR 172.102)	:	8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description “Other regulated substances, liquid or solid, n.o.s.”, as appropriate. In addition, for solid materials, special provision B54 applies 146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination 173 - An appropriate generic entry may be used for this material 335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as “Environmentally hazardous substances, solid, n.o.s,” UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leak-proof when used as bulk packaging IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672) T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP
DOT Packaging Exceptions (49 CFR 173.xxx)	:	155
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	No limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	No limit
DOT Vessel Stowage Location	:	A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel
Emergency Response Guide (ERG) Number	:	171
Other information	:	Only regulated by DOT if product exceeds Reportable Quantity under CERCLA. The reportable quantity can be found in Section 15 of this SDS.

TDG

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

ethylene glycol (107-21-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb

15.2. International regulations

CANADA
No additional information available

EU-Regulations
No additional information available

National regulations
No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

ethylene glycol (107-21-1)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Revision date : 03/09/2016

Abbreviations and acronyms : European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. European Agreement concerning the International Carriage of Dangerous Goods by Road. Acute Toxicity Estimate. Bioconcentration factor. Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008. Derived Minimal Effect level. Derived-No Effect Level. Dangerous Preparations Directive 1999/45/EC. Dangerous Substances Directive 67/548/EEC. Median effective concentration. International Agency for Research on Cancer. International Air Transport Association. International Maritime Dangerous Goods. Median lethal concentration. Median lethal dose. Lowest Observed Adverse Effect Level. No-Observed Adverse Effect Concentration. No-Observed Adverse Effect Level. No-Observed Effect Concentration. Organisation for Economic Co-operation and Development. Persistent Bioaccumulative Toxic. Predicted No-Effect Concentration. Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006. Regulations concerning the International Carriage of Dangerous Goods by Rai. Safety Data Sheet. Sewage treatment plant. Median Tolerance Limit. Very Persistent and Very Bioaccumulative.

Other information : None.

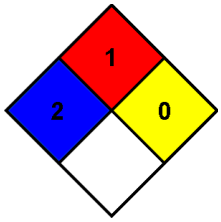
Full text of H-phrases:

H302	Harmful if swallowed

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard : 1 - Must be preheated before ignition can occur.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal Protection : B,n

B - Safety glasses, Gloves
n - Splash goggles

SDS US (GHS HazCom 2012)

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