Hinge Free™

Instrument Lubricant

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 11/26/2014 Version: 1.0

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

1.1. Product identifier

Product form : Mixture

Trade name : Hinge Free™ - Instrument Lubricant

Product code : 1031

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

Use of the substance/mixture : Instrument Lubricant

Use of the substance/mixture : For professional use only

1.3. Details of the supplier of the safety data sheet

STERIS Corporation
P. O. Box 147, St. Louis, MO 63166, US
Telephone Number for Information: 1-800-548-4873 (Customer Service - Healthcare Products)

1.4. Emergency telephone number

Emergency number : US Emergency Telephone No.1-314-535-1395 (STERIS); 1-800-424-9300 (CHEMTREC)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Corr. /Irrit. 3 H316

Full text of H-phrases: see Section 16.

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) : None

Signal word (GHS-US) : Warning

Hazard Statements (GHS-US) : H316 – Causes mild skin irritation.

Precautionary statements (GHS-US) : P332+P313 – If skin irritation occurs: Get medical advice/attention.

2.3. Other hazards

No additional information available.

2.4. Unknown acute toxicity (GHS-US)

No data available.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable.

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Dimethylol-5,5-dimethylhydantoin	(CAS No) 6440-58-0	1 - 3	Acute Tox. 4 (Oral), H302
Triethanolamine	(CAS No) 102-71-6	1 - 3	Eye Irrit. 2, H319
Etoxylated oleyl alcohol	(CAS No) 9004-98-2	1 - 5	Not classified

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 : Remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Get medical attention.

First-aid measures after skin contact : Immediately flush skin with plenty of water for at least 15 minutes. Remove/Take off immediately all contaminated clothing. Obtain medical attention.

First-aid measures after eye contact : In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention immediately.

First-aid measures after ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Give water to drink if victim completely conscious/alert.

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

Symptoms/injuries after inhalation : The inhalation of airborne droplets or aerosols causes irritation of the respiratory tract.

Symptoms/injuries after skin contact : Prolonged or repeated contact with the skin may cause dermatitis.

Symptoms/injuries after ingestion : Can occur: Gastrointestinal disturbance. Abdominal pain.

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 : Use fire-extinguishing media appropriate for surrounding materials. Foam, carbon dioxide, dry chemical. Water spray.

5.2. Special hazards arising from the substance or mixture

No additional information available.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Cool closed containers exposed to fire with water spray. Do not get water inside containers.

Protective equipment for firefighters : Use self-contained breathing apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide. Sulfur oxides.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid inhalation of vapor and spray mist. Avoid contact with skin, eyes and clothes. Use personal protective equipment as required. Stop leak if safe to do so.

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 : Ensure adequate ventilation.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Spills may be picked up with a mop and followed by a water rinse. Wash contaminated areas with large quantities of water to a sanitary sewer, if in accordance with local, state or national legislation. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect in closed containers for disposal. Ensure all national/local regulations are observed.

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 : Read label before use. Avoid contact with skin, eyes and clothing. Avoid breathing mist or vapor. Keep container closed when not in use. Work in a well-ventilated area.

Hygiene measures : Wash hands thoroughly after handling. Take care for general good hygiene and housekeeping. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : A washing facility/water for eye and skin cleaning purposes should be present. Provide local exhaust or general room ventilation.

Storage conditions : Keep out of reach of children. Keep only in the original container in a cool, well ventilated place. Store at room temperature. Avoid freezing.

Incompatible materials : Strong oxidizers.

7.3. Specific end use(s)

No additional information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Triethanolamine (102-71-6)		
USA - ACGIH	ACGIH TWA (mg/m³)	5 mg/m³

8.2. Exposure controls

Appropriate engineering controls : Provide local exhaust or general room ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment : Avoid all unnecessary exposure. Personal protective equipment should be selected based upon the conditions under which this product is handled or used. Protective clothing. Gloves. Protective googles.

Hand protection : Wear rubber gloves.

Eye protection : Wear chemical goggles or safety glasses.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : The need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation.

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 : Milky white emulsion

Color : Milky white

Odor : Mild oleic odor

Odour threshold : No data available

pH : 7.8 Approximately (concentrate)

pH solution : pH (1:6): Approx. 7.4

Relative evaporation rate (butyl acetate=1) : No data available

Melting point : No data available

Freezing point : No data available

Boiling point : No data available

Flash point : > 93.33 °C (>200 °F)

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapour pressure : No data available

Relative vapour density at 20 °C : No data available

Relative density : No data available

Density : 0.989 g/ml Specific Gravity

Solubility : Water: Disperses

Log Pow	:	No data available
Log Kow	:	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.

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

No additional information available.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

No additional information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Based on available data, the classification criteria are not met.

Dimethylol-5,5-dimethylhydantoin (6440-68-0)	
LD50 oral rat	2000 mg/kg
ATE CLP (oral)	2000.000 mg/kg bodyweight

Triethanolamine (102-71-6)
4190 mg/kg
> 20 ml/kg
4190.000 mg/kg bodyweight

Skin corrosion/irritation : Causes mild skin irritation.

pH: 7.8 Approximately

Serious eye damage/irritation : Not considered to be an eye irritant

pH: 7.8 Approximately

Respiratory or skin sensitisation : Not expected to cause irritation.

Germ cell mutagenicity : Not classified

Based on available data, the classification criteria are not met.

Carcinogenicity : Not classified

Based on available data, the classification criteria are not met.

Reproductive toxicity : Not classified

Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure) : Not classified

Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure) : Not classified

Based on available data, the classification criteria are not met.

Aspiration hazard : Not classified
Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Inherently biodegradable. (OECD 301B method).

Triethanolamine (102-71-6)	
LC50 fishes 1	10600-1300 mg/l (Exposure time: 96 h – Species: Pimephales promelas [flow-through])
LC50 fish 2	>1000 mg/l (Exposure time: 96 h – Species: Pimephales promelas [satic])

12.2. Persistence and degradability

Hinge Free™ - Instrument Lubricant	
Persistance and degradability	The surfactant(s) contained in this preparation complies (comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of the detergent manufacturer.

12.3. Bioaccumulative potential

Hinge Free™ - Instrument Lubricant	
Bioaccumulative potential	Not established

Triethanolamine (102-71-6)	
BCF fish 1	BCF fish 1
Log Pow	Low Pog

12.4. Mobility in soil

No additional information available.

12.5. Other adverse effects.

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. Do not re-use empty containers.

Additional information : Never return unused material to original container. Small spills may be flushed to a sanitary sewer with copious amounts of water, if in accordance with local, state or national legislation. Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Not regulated for transport.

Additional information

Other information : No supplementary information available.

ADR

Transport document description : 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

Hinge Free™ - Instrument Lubricant	
RQ (Reportable quantity, section 304 of EPA's List of Lists) :	9433 lb

Dimethylol-5,5-dimethylhydantoin (6440-58-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

No additional information available.

15.3. US State regulations

This product contains a chemical known to the State of California to cause cancer.

SECTION 16: Other information

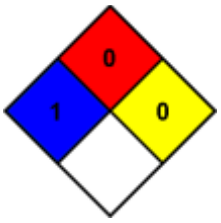
Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Corr. 3	Skin corrosion/irritation Category 3
H302	Harmful if swallowed
H316	Causes mild skin irritation
H319	Causes serious eye irritation

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard : 0 - Materials that will not burn.

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



SDS US (GHS HazCom 2012)

The information on this sheet is not a specification and does not guarantee specific properties. The information is intended to provide general knowledge as to health and safety based upon our knowledge of the handling, storage and use of the product. It is Not applicable. to unusual or non-standard uses of the product or where instruction or recommendations are not followed.