



Prepared according to Commission Regulation (EU) No 453/2010.

Section 1	Identification of substance/mixture and of the company/undertaking
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1.1 Product Identifier**HUILLE ESTER 160SZ**

Synonyms None.

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

Relevant identified uses (see section 7.3 for information on REACH registered uses)

Refrigeration Lubricants.

1.3 Details of the supplier of the safety data sheet

CPI Engineering Services
 2300 James Savage Rd.
 Midland, MI 48642
 Phone: 989-496-3780
 Fax: 989-496-0316

E-mail contact EUSDS@lubrizol.com (Lubrizol Safety Data Sheets can be obtained at www.mylubrizol.com)

1.4 Emergency Telephone number

FOR TRANSPORT EMERGENCY call CHEMTREC: (+1) 703-527-3887 (outside the U.S.), 1-800-424-9300 (in the U.S.)

Section 2	Hazards Identification
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2.1 Classification of the substance or mixture

(EC) No 1272/2008

This product does not meet the classification requirements of the current European legislation.

67/548/EC or 1999/45/EC

This product does not meet the classification requirements of the current European legislation.

For a full text of R- and H- phrases: See section 16

2.2 Label elements

(EC) No 1272/2008

Not applicable.

Store away from oxidizers.

Supplemental label information

None.

2.3 Other hazards

None identified.

Section 3	Composition/Information on Ingredients
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3.2 Mixtures

(EC) No 1272/2008

This material contains no ingredients requiring disclosure under regulatory hazard criteria for this jurisdiction. See Section 11 for additional details.

67/548/EC or 1999/45/EC

This material has no known hazards under applicable laws.

600, 700, 800 and 900 ECHA List Numbers do not have any legal significance; rather they are purely technical identifiers and are displayed for informational purposes only.

Section 4	First Aid Measures
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4.1 Description of first aid measures**Skin**

Wash with soap and water. Remove contaminated clothing. Get medical attention if irritation develops. Launder contaminated clothing before reuse.

Eyes

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Flush with water at least 30 minutes. Get medical attention if eye irritation develops or persists.

Inhaled

Remove exposed person to fresh air if adverse effects are observed.

Swallowed

DO NOT INDUCE VOMITING. Get immediate medical attention. Rinse mouth and then drink plenty of water, seek medical attention Call a poison center or doctor if exposed or you feel unwell.

Advice for first-aid providers

When providing first aid always protect yourself against exposure to chemicals or blood born diseases by wearing gloves, masks and eye protection. After providing first aid wash your exposed skin with soap and water.

4.2 Most important symptoms and effects, both acute and delayed

See section 11.

4.3 Indication of any immediate medical attention and special treatment needed

Note to physician: Treat symptomatically.

Section 5	Fire Fighting Measures
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5.1 Extinguishing Media

CO2, dry chemical, foam, water spray, water fog. Water can be used to cool and protect exposed material

5.2 Special hazards arising from substance or mixture

Burning may produce irritating, toxic and obnoxious fumes. Container may rupture in a fire situation. See section 10 for additional information.

5.3 Advice for firefighters

Wear full protective firegear including self-containing breathing apparatus operated in the positive pressure mode with full facepiece, coat, pants, gloves and boots. Water or foam may cause frothing. Avoid solid streams of water. Use water spray. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. Do not release chemically contaminated water into drains, soil or surface water.

Section 6	Accidental Release Measures
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6.1 Personal precautions, protective equipment and emergency procedures

Only trained personnel should be permitted in area. Personal protective equipment must be worn. Ventilate area if spilled in a confined space or other poorly ventilated area. Material on floor may be slippery.

6.2 Environmental precautions

Material will float on water. Do not flush into surface water, sanitary sewer or ground water system.

6.3 Methods and material for containment and cleaning up

Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material. Small spills: contain spilled material. Transfer to secure containers. Where necessary collect using absorbent media. Larger spills: stop spill and dike area to prevent spreading, pump liquid to salvage tank. remaining liquid may be taken up on sand, clay, earth, floor absorbent or other absorbent material and shoveled into containers. Wash spill area with soap and water.

6.4 Reference to other sections

See sections 8 and 13 for additional information.

Section 7	Handling and Storage
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7.1 Precautions for safe handling

Keep containers closed when not in use. Do not discharge into drains or the environment, dispose to an authorized waste collection point. Use appropriate containment to avoid environmental contamination. When handling, do not eat, drink, or smoke Avoid inhalation of dust, aerosol, mist, spray, fume, or vapor. Use with appropriate and adequate ventilation. Ground containers when pouring. Wash thoroughly after handling. Launder contaminated clothing before reuse. Empty containers retain material residue. Do not cut, weld, braze, solder, drill, grind or expose containers to heat, flame, spark or other sources of ignition. Dispose of packaging or containers in accordance with local, regional, national and international regulations.

Pumping Temperature

Not determined.

Maximum Handling Temperature

Not determined.

Maximum Loading Temperature

Not determined.

7.2 Conditions for safe storage, including any incompatibilities

Store separately from oxidizers. Store in a cool, dry location. Store separately from incompatible materials. Keep only in original container. Do not store in open, unlabeled or mislabeled containers. See section 10 for incompatible materials.

Maximum Storage Temperature

Not determined.

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7.3 Specific end use(s)

End uses are listed in an attached exposure scenario when one is required.

Section 8	Exposure Controls/Personal Protection
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8.1 Control parameters

None known.

Other Exposure Limits

Contains synthetic basestock. Under conditions which may generate mists, observe the OSHA PEL of 5 mg per cubic meter, ACGIH TWA of 5 mg per cubic meter for mineral oil mists.

8.2 Exposure controls

Use with adequate ventilation.

Eye/face protection

Safety glasses. If oil mist is generated, chemical goggles are recommended.

Skin protection

Neoprene. Consult clothing/glove manufacturer to determine appropriate type of glove for given situation. Gloves should always be inspected before each use and discarded if they show tears, pinholes, or signs of wear. Use good industrial hygiene practices to avoid skin contact. If contact with the material may occur wear chemically protective gloves.

Long sleeve shirt is recommended. Launder contaminated clothing before reuse.

Respiratory Protection

Use respirator with a combination organic vapor and high efficiency filter cartridge if recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.

Hygiene Measures

Wash thoroughly after handling this product. Do not eat, drink or smoke when using this product.

Environmental exposure controls

See section 6 for details.

Section 9	Physical and Chemical Properties
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9.1 Information on basic physical and chemical properties

Appearance	Clear to yellow liquid.
Odour	Mild
Odour Threshold	Not determined.
pH	Not determined.
Melting / Freezing Point	Not determined.
Boiling Point	Not determined.
Boiling Point Range	Not determined.
Flash Point	270 °C, 518 °F TOC (Typical)
Evaporation Rate	Not determined.
Flammability (solid,gas)	Not applicable.
Lower flammability or explosive limit	Not determined.
Upper flammability or explosive limit	Not determined.
Vapour Pressure	Not determined.
Vapour Density	Not determined.
Relative density	0.98 (20 °C)
Bulk Density	Not determined.
Water Solubility	Insoluble.
Other solubilities	Not determined.
Partition coefficient: n-octanol/water	Not determined.
Autoignition Point	Not determined.
Decomposition Temperature	Not determined.
Viscosity	33.7 Centistokes (40 °C) 5.9 Centistokes (100 °C)
Explosive properties	Material does not have explosive properties.
Oxidising properties	Material is a non-oxidising substance.

9.2 Other information

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**Pour Point
Temperature** ~ -46 °C, ~ -51 °F

The above data are typical values and do not constitute a specification.

Section 10	Stability and Reactivity
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10.1 Reactivity

Carefully review all information provided in sections 10.2 - 10.6.

10.2 Chemical stability

Material is normally stable at moderately elevated temperatures and pressures.

10.3 Possibility of hazardous reactions

Will not occur.

10.4 Conditions to avoid

Do not expose to excessive heat, ignition sources, or oxidizing materials.

10.5 Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

10.6 Hazardous decomposition products

Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion.

Section 11	Toxicological Information
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11.1 Information on toxicological effects

Acute toxicity

Oral

The LD50 in rats is > 2000 mg/Kg. Based on data from components or similar materials. Ingestion of this material may cause gastrointestinal irritation.

Dermal

The LD50 in rabbits is > 2000 mg/Kg. Based on data from components or similar materials.

Inhalation

No data available to indicate product or components may be a toxic inhalation hazard.

Skin corrosion / irritation

Not expected to be a primary skin irritant. Based on data from components or similar materials. Prolonged or repeated contact may cause skin discomfort or mild irritation.

Serious eye damage / irritation

Not expected to cause eye irritation. Based on data from components or similar materials.

Respiratory Irritation

If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract. Based on data from components or similar materials.

Respiratory or skin sensitization

Skin

No data available to indicate product or components may be a skin sensitizer.

Respiratory

No data available to indicate product or components may be respiratory sensitizers.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

No data available to indicate any components present at greater than 0.1% may present a carcinogenic hazard.

Reproductive Toxicity

No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.

STOT repeated exposure

No data available to indicate product or components present at greater than 1% are chronic health hazards.

Other information

No other health hazards known.

Section 12	Ecological Information
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12.1 Toxicity

Freshwater fish

The acute LC50 is > 1000 mg/L based on similar materials.

Freshwater invertebrates

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The acute EC50 is > 1000 mg/L based on similar materials.

Algae

The acute EC50 is > 1000 mg/L based on similar materials.

Saltwater fish

Not determined.

Saltwater invertebrates

Not determined.

Bacteria

The acute EC50 is > 1000 ppm based on similar materials.

12.2 Persistence and degradability

Substance	Pct. (weight)	Test type	Duration (days)	Pct. degradation
Fatty acids, C5-10, esters with pentaerythritol	From 90 to 100 percent	Sturm	28	63.1

12.3 Bioaccumulative potential

Not determined.

12.4 Mobility in soil

Not determined.

12.5 Results of PBT and vPvB assessment

Not Available

12.6 Other adverse effects

None known.

Section 13	Disposal Considerations
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13.1 Waste treatment methods

All disposal practices must be in accordance with local, regional, national and international regulations. Do not dispose in landfill.

Empty container retains product residue and can be hazardous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat, flame, sparks, static electricity, or other sources of ignition. Dispose of packaging or containers in accordance with local, regional, national and international regulations.

Section 14	Transport Information
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14.1 UN number

ADR/RID	Not regulated
ICAO	Not regulated
IMDG	Not regulated

14.2 UN proper shipping name

ADR/RID	Not regulated
ICAO	Not regulated
IMDG	Not regulated

14.3 Transport hazard class(es)

ADR/RID	Not regulated
ICAO	Not regulated
IMDG	Not regulated

14.4 Packing group

ADR/RID	Not regulated
ICAO	Not regulated
IMDG	Not regulated

14.5 Environmental hazards

ADR/RID	Not applicable.
ICAO	Not applicable.
IMDG	Not applicable.

14.6 Special precautions for users

Review classification requirements before shipping materials at elevated temperatures.

14.7 Transport in bulk according to Annex II of Marpol 73/78 and the IBC code

Not determined.

15.1 Safety, health and environment regulations / legislation specific for the substance or mixture**Global Chemical Inventories**

Australia	All components are in compliance with chemical notification requirements in Australia.
Canada	All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List.
China	All components of this product are listed on the Inventory of Existing Chemical Substances in China.
EU	To obtain information on the REACH compliance status of this product, please visit Lubrizol.com/REACH , or e-mail us at REACH_MSDS_INQUIRIES@Lubrizol.com
Japan	All components are in compliance with the Chemical Substances Control Law of Japan.
Korea	All components are in compliance in Korea.
New Zealand	All components are in compliance with chemical notification requirements in New Zealand.
Philippines	All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969).
Switzerland	All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.
Taiwan	All components of this product are listed on the Taiwan inventory.
USA	All components of this material are on the US TSCA Inventory or are exempt.

German water hazard classes

WGK = 1 according to the Water Hazardous Directive, VwVwS, dated May 17, 1999.

15.2 Chemical safety assessment

No chemical safety assessment has been carried out.

Section 16	Other Information
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Created by

Product Safety and Compliance Department (440-943-1200)

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08 April 2013

Revision date

15 November 2013

SDS No.

13848230-6411011-618331-102103

HMIS Codes

Health	Fire	Reactivity
1	1	0

Relevant R Phrases

Not applicable.

Relevant hazard phrases

Not determined.

Revision Indicators

Section: 4 Inhalation first aid.

Changed: 9 July 2013

Section: 8 Ventilation procedures.

Changed: 9 July 2013

Section: 11 Inhalation toxicity.

Changed: 9 July 2013

Section: 15 Canada.

Changed: 24 September 2013

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