SAFETY DATA SHEET



Lucas Marine Grease

Section 1. Identification

GHS product identifier : Lucas Marine Grease

Other means of identification

: Not available.

Product type : Semi-Solid.

Product code : 10320, 10321, 10322, 10660, 10682

SDS # : N/A/Mixture

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

Product use: For : Industrial applications: Lubricants; grease.

professional use only. Lucas Oil Products, Inc

Supplier's details :

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard

(29 CFR 1910.1200).

Classification of the substance or mixture GHS label elements

: EYE IRRITATION - Category 2A

Hazard pictograms :



Signal word : Warning

Hazard statements: Causes serious eye irritation.

Precautionary statements

Prevention: Wear eye or face protection. Wash hands thoroughly after handling.

Validated on 8/10/2017. 1/14

Section 2. Hazards identification

Response : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Not applicable.

Disposal : Not applicable.

Hazards not otherwise : None known.

classified

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Other means of identification

: Not available.

CAS number/other identifiers

| Ingredient name | % | CAS number |
|---|-------|------------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | 30-60 | 64742-65-0 |
| Benzenesulfonic acid, C10-16-alkyl derivs. | 3-7 | 68584-22-5 |
| diboron calcium tetraoxide | 1-5 | 13701-64-9 |
| calcium dodecylbenzenesulphonate | 1-5 | 26264-06-2 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

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: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10

minutes. Get medical attention.

Inhalation

Eye contact

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar,

tie, belt or waistband.

Skin contact

: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion

: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Validated on 8/10/2017. 2/14

Section 4. First aid measures

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation: No known significant effects or critical hazards.Skin contact: No known significant effects or critical hazards.Ingestion: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation: No specific data.Skin contact: No specific data.Ingestion: No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.

Specific treatments: No specific treatment.

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. It may

: Use an extinguishing agent suitable for the surrounding fire.

: Decomposition products may include the following materials:

be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

: None known.

Unsuitable extinguishing

media

Specific hazards arising from the chemical

Hazardous thermal decomposition products

: No specific fire or explosion hazard.

carbon dioxide carbon monoxide sulfur oxides metal oxide/oxides

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable

training.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Validated on 8/10/2017. 3/14

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel".

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill

: Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill

Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Validated on 8/10/2017. 4/14

Section 8. Exposure controls/personal protection

| Ingredient name | Exposure limits |
|---|---|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | ACGIH TLV (United States, 3/2016). TWA: 5 mg/m³ 8 hours. Form: Inhalable fraction NIOSH REL (United States, 10/2013). TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist OSHA PEL (United States, 6/2016). TWA: 5 mg/m³ 8 hours. |

Appropriate engineering controls

: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Validated on 8/10/2017. 5/14

Section 9. Physical and chemical properties

Appearance

Physical state : Solid. [grease]

Color : Blue.

Odor : Mild. Petroleum oil
pH : Not applicable.

Melting point : Not available.

Boiling point : Not available.

Flash point : Not available.

Evaporation rate : Not available.

Flammability (solid, gas) : Flammable in the presence of the following materials or conditions: open flames, sparks

and static discharge and heat.

Lower and upper explosive

(flammable) limits

: Not available.

Vapor pressure: Not available.Vapor density: Not available.Relative density: 0.96 g/cm³

Solubility : Insoluble in the following materials: cold water.

Partition coefficient: n-

octanol/water

: Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): >0.22 cm²/s (>22 cSt)

VOC : 0 Not available.
VOC Method : ASTM E 1868

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: The product is stable.

Possibility of hazardous

reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition

products

: Under normal conditions of storage and use, hazardous decomposition products should

not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Validated on 8/10/2017. 6/14

Section 11. Toxicological information

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|--------------------------|---------|---------------------------|----------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| Benzenesulfonic acid, C10-16-alkyl derivs. | LD50 Oral LD50 Dermal | | >5000 mg/kg 2000 mg/kg | - |
| | LD50 Oral | Rat | 775 mg/kg | - |

Conclusion/Summary

: No known significant effects or critical hazards.

Irritation/Corrosion

Conclusion/Summary

Skin : No known significant effects or critical hazards.

Eyes : Causes eye irritation.

Respiratory: No known significant effects or critical hazards.

Sensitization

Conclusion/Summary

Skin : No specific information is available in our database regarding the skin sensitizing

properties of this product. Sensitization not suspected for humans.

Respiratory: Sensitization not suspected for humans.

Mutagenicity

Conclusion/Summary: There are no data available on the mixture itself. Mutagenicity not suspected for

humans.

Carcinogenicity

Conclusion/Summary: There are no data available on the mixture itself. Carcinogenicity not suspected for

humans

Reproductive toxicity

Conclusion/Summary: There are no data available on the mixture itself. Not considered to be dangerous to

humans, according to our database.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself. Teratogenicity not suspected for

humans.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

| Name | Result |
|---|--------------------------------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | ASPIRATION HAZARD - Category 1 |

Information on the likely

routes of exposure

: Routes of entry anticipated: Oral, Dermal.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : No known significant effects or critical hazards.

Validated on 8/10/2017. 7/14

Section 11. Toxicological information

Skin contactIngestionNo known significant effects or critical hazards.No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation: No specific data.Skin contact: No specific data.Ingestion: No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate

effects

: Not available.

Potential delayed effects

: Not available.

Long term exposure

Potential immediate

Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Conclusion/Summary : No known significant effects or critical hazards.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Volume : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|-------|--------------------------------|
| | 18213.9 mg/kg 47003.5 mg/kg |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|--------|--|----------|
| Benzenesulfonic acid, C10-16-alkyl derivs. | _ | Crustaceans - Ceriodaphnia dubia - Neonate | 48 hours |

Conclusion/Summary: There are no data available on the mixture itself.

Persistence and degradability

Validated on 8/10/2017. 8/14

Section 12. Ecological information

Conclusion/Summary

: This product has not been tested for biodegradation. Not expected to be rapidly degradable.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| MC 2000B | - | - | Not readily |

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | ADR/RID | IMDG | IATA |
|----------------------------|---|-----------------------|--------------------------|----------------|----------------|----------------|
| UN number | UN3077 | Not regulated. | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (calcium dodecylbenzenesulphonate) | - | - | - | - | - |
| Transport hazard class(es) | 9 | - | - | - | - | - |
| Packing group | III | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | No. | No. |
| | | | | | | |

Validated on 8/10/2017. 9/14

| Additional | Reportable | - | - | - | - | - |
|------------|-------------------------|---|---|---|---|---|
| nformation | quantity | | | | | |
| | 50000 lbs / | | | | | |
| | 22700 kg | | | | | |
| | The | | | | | |
| | classification of | | | | | |
| | the product is | | | | | |
| | due solely to | | | | | |
| | the presence | | | | | |
| | of one or more | | | | | |
| | US DOT-listed | | | | | |
| | 'Hazardous | | | | | |
| | substances' | | | | | |
| | that are | | | | | |
| | subject to | | | | | |
| | reportable | | | | | |
| | quantity | | | | | |
| | requirements | | | | | |
| | and only | | | | | |
| | applies to | | | | | |
| | shipments of | | | | | |
| | packages | | | | | |
| | greater than, or | | | | | |
| | equal to, the | | | | | |
| | product | | | | | |
| | reportable | | | | | |
| | quantity. | | | | | |
| | Package sizes | | | | | |
| | less than the | | | | | |
| | product | | | | | |
| | reportable | | | | | |
| | quantity are | | | | | |
| | not regulated | | | | | |
| | as hazardous materials. | | | | | |

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according: Not available. to Annex II of MARPOL and the IBC Code

Section 15. Regulatory information

U.S. Federal regulations

: TSCA 8(a) PAIR: diphenylamine

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

Clean Water Act (CWA) 311: calcium dodecylbenzenesulphonate

Validated on 8/10/2017. 10/14

Section 15. Regulatory information

Clean Air Act Section 112

(b) Hazardous Air **Pollutants (HAPs)** : Not listed

Clean Air Act Section 602

Class I Substances

: Not listed

Clean Air Act Section 602

: Not listed

Class II Substances

DEA List I Chemicals

: Not listed

(Precursor Chemicals)

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Immediate (acute) health hazard

Composition/information on ingredients

| Name | % | hazard | Sudden release of pressure | Reactive | Immediate (acute) health hazard | Delayed (chronic) health hazard |
|--|-----|--------|----------------------------------|----------|--|--|
| Benzenesulfonic acid, C10-16-alkyl derivs. diboron calcium tetraoxide calcium dodecylbenzenesulphonate | 3-7 | No. | No. | No. | Yes. | No. |
| | 1-5 | No. | No. | No. | Yes. | No. |
| | 1-5 | No. | No. | No. | Yes. | No. |

SARA 313

| | Product name | CAS number | % |
|---------------------------------|---------------------|------------|---|
| Form R - Reporting requirements | No listed substance | | |
| Supplier notification | No listed substance | | |

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Connecticut Carcinogen Reporting

Connecticut Hazardous Material Survey

Florida substances

Illinois Chemical Safety Act

Illinois Toxic Substances Disclosure to Employee

Act

Louisiana Reporting

Louisiana Spill

Massachusetts Spill

- : None of the components are listed.

Validated on 8/10/2017. 11/14

Section 15. Regulatory information

Massachusetts Substances

Michigan Critical Material

Minnesota Hazardous Substances

New Jersey Spill

New Jersey Toxic Catastrophe Prevention Act

New Jersey Hazardous Substances

New York Acutely Hazardous Substances

New York Toxic Chemical Release Reporting Pennsylvania RTK Hazardous Substances

Rhode Island Hazardous Substances

California Prop. 65

None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

International lists

Australia : All components are listed or exempted.
China : All components are listed or exempted.
Europe : All components are listed or exempted.

Japan : Not determined.

New Zealand: All components are listed or exempted.Philippines: All components are listed or exempted.Republic of Korea: All components are listed or exempted.Taiwan: All components are listed or exempted.

Canada

WHMIS (Canada) : Class D-2B: Material causing other toxic effects (Toxic).

Canadian lists

Canadian NPRI : None of the components are listed.

CEPA Toxic substances : None of the components are listed.

Canada inventory; DSL/ : All components are listed or exempted.

NDSL

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

The following components are listed: CALCIUM

The following components are listed: CALCIUM

The following components are listed: Calcium

DODECYLBENZENE SULFONATE; BENZENESULFONIC

BENZENESULFONIC ACID, DODECYL-, CALCIUM SALT

DODECYLBENZENE SULFONATE

None of the components are listed.

None of the components are listed.None of the components are listed.

: None of the components are listed.

ACID, DODECYL-, CALCIUM SALT

: None of the components are listed.

: None of the components are listed.

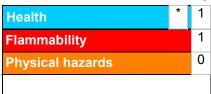
The following components are listed:

dodecylbenzene sulfonate

Validated on 8/10/2017. 12/14

Section 16. Other information

Hazardous Material Information System (U.S.A.)



Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA).

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

History

Date of issue/Date of : 8/10/2017

revision

Date of previous issue : 7/6/2015

Version : 1

Regulatory Department, Chemtool Inc.

Key to abbreviations : ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973

as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

Notice to reader

Validated on 8/10/2017. 13/14

Section 16. Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Validated on 8/10/2017. 14/14