


LITHIUM COMPLEX GREASE #2

Printing: 6/8/2022 Date of compilation: 4/8/2022 Version: 1

SECTION 1: IDENTIFICATION

- 1.1 GHS Product identifier:** LITHIUM COMPLEX GREASE #2
Other means of identification:
1510520
- 1.2 Recommended use of the chemical and restrictions on use:**
Relevant uses: Lubricant (grease)
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**
Lubricantes de América S.A. de C.V.
Carretera a García Km 1.2 Int. 8 Parque Industrial Gonher
66350 Santa Catarina - Nuevo León - México
Phone: 8181227400
contacto@lubral.com
www.lubral.com
- 1.4 Emergency phone number:** 8181227400 EXT. 58535 Con horario de atención de 8:00 a 18:00

SECTION 2: HAZARD(S) IDENTIFICATION

- 2.1 Classification of the substance or mixture:**
29 CFR 1910.1200:
Classification of this product has been carried out in accordance with paragraph (d) of § 1910.1200.
Skin Sens. 1A: Sensitisation, skin, Category 1A, H317
- 2.2 Label elements:**
29 CFR 1910.1200:
Warning

Hazard statements:
Skin Sens. 1A: H317 - May cause an allergic skin reaction.
Precautionary statements:
P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P272: Contaminated work clothing should not be allowed out of the workplace.
P280: Wear protective gloves/protective clothing/respiratory protection/eye protection/protective footwear.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P501: Dispose of the contents/containers according to the local, state and federal regulations.
Substances that contribute to the classification
maleic anhydride
- 2.3 Hazards not otherwise classified (HNOC):**
Non-applicable

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Substances:**
Non-applicable
- 3.2 Mixtures:**
Chemical description: Mixture based on hydrocarbons and additives
Components:

LITHIUM COMPLEX GREASE #2

Printing: 6/8/2022

Date of compilation: 4/8/2022

Version: 1

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 64742-52-5	Distillates (petroleum), hydrotreated heavy naphthenic , < 3 % IP 346(<20.5 cSt @ 40°C) Asp. Tox. 1: H304 - Danger	25 - <45 %
CAS: 64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic, < 3 % DMSO (> 7 cSt 40°C, < 20.5 cSt 40°C) Asp. Tox. 1: H304 - Danger	5 - <25 %
CAS: 64742-54-7	Distillates (petroleum), hydrotreated heavy paraffinic , < 3 % IP 346, < 20.5 cSt @ 40°C Asp. Tox. 1: H304 - Danger	1 - <5 %
CAS: 108-31-6	maleic anhydride Acute Tox. 4: H302; Eye Dam. 1: H318; Resp. Sens. 1: H334; Skin Corr. 1B: H314; Skin Sens. 1A: H317; STOT RE 1: H372 - Danger	<1 %

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation, however, it is recommended in case of intoxication symptoms to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

May cause an allergic skin reaction. In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of modifications on the skin (stinging, redness, rashes, blisters,...), seek medical advice with this Safety data Sheet

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable (and unsuitable) extinguishing media:

Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

Non-applicable

5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

LITHIUM COMPLEX GREASE #2

Printing: 6/8/2022

Date of compilation: 4/8/2022

Version: 1

SECTION 5: FIRE-FIGHTING MEASURES (continued)

5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

For emergency responders:

See section 8.

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

6.3 Methods and materials for containment and cleaning up:

It is recommended:

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Maintain order, cleanliness and destroy using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Store in a cool, dry, well-ventilated location

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

- CONTINUED ON NEXT PAGE -

LITHIUM COMPLEX GREASE #2

Printing: 6/8/2022 Date of compilation: 4/8/2022 Version: 1

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Substances whose occupational exposure limits have to be monitored in the workplace:

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000):

Identification	Occupational exposure limits		
	maleic anhydride CAS: 108-31-6	8-hour TWA PEL	0.25 ppm
	Ceiling Values - TWA PEL		

US. ACGIH Threshold Limit Values (2022):

Identification	Occupational exposure limits		
	maleic anhydride CAS: 108-31-6	TLV-TWA	0.1 ppm
	TLV-STEL		

CALIFORNIA- TABLE AC-1 PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS:

Identification	Occupational exposure limits		
	maleic anhydride CAS: 108-31-6	PEL	0.1 ppm
	STEL		


Nuisance dust: Inhalable dust 10 mg/m³ // Respirable dust 4 mg/m³

8.2 Appropriate engineering controls:


A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

B.- Respiratory protection


Pictogram	PPE	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment. Use respirator in accordance with manufacturer's use limitations and OSHA standard 1910.134 (29CFR)

C.- Specific protection for the hands

Pictogram	PPE	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Linear low-density polyethylene (LLDPE), Breakthrough time: > 480 min, Thickness: 0.062 mm)	The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin. Use gloves in accordance with manufacturer's use limitations and OSHA standard 1910.138 (29CFR)

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Pictogram	PPE	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer's use limitations and OSHA standard 1910.133 (29CFR)

E.- Bodily protection

Pictogram	PPE	Remarks
	Work clothing	Replace before any evidence of deterioration.



LITHIUM COMPLEX GREASE #2

Printing: 6/8/2022 Date of compilation: 4/8/2022 Version: 1

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Pictogram	PPE	Remarks
	Anti-slip work shoes	Replace before any evidence of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

National volatile organic compound emission standards (40 CFR Part 59):

V.O.C.(weight-percent):	0 % weight
V.O.C. at 68 °F:	0.02 kg/m ³ (0.02 g/L)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 68 °F:	Solid
Appearance:	Not available
Color:	Amber
Odor:	Not available
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	Non-applicable *
Vapour pressure at 68 °F:	Non-applicable *
Vapour pressure at 122 °F:	Non-applicable *
Evaporation rate at 68 °F:	Non-applicable *

Product description:

Density at 68 °F:	921.3 kg/m ³
Relative density at 68 °F:	0.921
Dynamic viscosity at 68 °F:	Non-applicable *
Kinematic viscosity at 68 °F:	Non-applicable *
Kinematic viscosity at 104 °F:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 68 °F:	Non-applicable *
Partition coefficient n-octanol/water 68 °F:	Non-applicable *
Solubility in water at 68 °F:	Non-applicable *
Solubility properties:	Non-applicable *
Decomposition temperature:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

LITHIUM COMPLEX GREASE #2

Printing: 6/8/2022

Date of compilation: 4/8/2022

Version: 1

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for skin contact. For more information see section 3.
- Contact with the eyes: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
IARC: Distillates (petroleum), solvent-refined heavy paraffinic , < 3 % IP 346 (3); Distillates (petroleum), hydrotreated heavy naphthenic , < 3 % IP 346 (<20.5 cSt @ 40°C) (3); Distillates (petroleum), solvent-dewaxed heavy paraffinic , < 3 % DMSO (> 7 cSt 40°C, < 20.5 cSt 40°C) (3); Distillates (petroleum), hydrotreated heavy paraffinic , < 3 % IP 346, < 20.5 cSt @ 40°C (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous with sensitising effects. For more information see section 3.
- Skin: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Non-applicable

Specific toxicology information on the substances:

Not available

LITHIUM COMPLEX GREASE #2

Printing: 6/8/2022 Date of compilation: 4/8/2022 Version: 1

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

12.1 Ecotoxicity (aquatic and terrestrial, where available):

Not available

12.2 Persistence and degradability:

Not available

12.3 Bioaccumulative potential:

Not available

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
maleic anhydride	Koc	Non-applicable	Henry	Non-applicable
CAS: 108-31-6	Conclusion	Non-applicable	Dry soil	Non-applicable
	Surface tension	1.673E-2 N/m (482.38 °F)	Moist soil	Non-applicable

12.5 Results of PBT and vPvB assessment:

Non-applicable

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Disposal methods:

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. Waste should not be disposed of to drains. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question:

LITHIUM COMPLEX GREASE #2

Printing: 6/8/2022

Date of compilation: 4/8/2022

Version: 1

SECTION 15: REGULATORY INFORMATION (continued)

Toxic chemical release reporting under EPCRA section 313 (40 CFR Part 372): maleic anhydride
 California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable
 The Toxic Substances Control Act (TSCA) : Distillates (petroleum), hydrotreated heavy naphthenic , < 3 % IP 346(<20.5 cSt @ 40°C) ; Distillates (petroleum), solvent-dewaxed heavy paraffinic, < 3 % DMSO (> 7 cSt 40°C, < 20.5 cSt 40°C) ; Distillates (petroleum), hydrotreated heavy paraffinic , < 3 % IP 346, < 20.5 cSt @ 40°C ; maleic anhydride
 Massachusetts RTK - Substance List: maleic anhydride
 New Jersey Worker and Community Right-to-Know Act: maleic anhydride
 New York RTK - Substance list: maleic anhydride
 Pennsylvania Worker and Community Right-to-Know Law: maleic anhydride
 CANADA-Domestic Substances List (DSL): Distillates (petroleum), hydrotreated heavy naphthenic , < 3 % IP 346(<20.5 cSt @ 40°C) ; Distillates (petroleum), solvent-dewaxed heavy paraffinic, < 3 % DMSO (> 7 cSt 40°C, < 20.5 cSt 40°C) ; Distillates (petroleum), hydrotreated heavy paraffinic , < 3 % IP 346, < 20.5 cSt @ 40°C ; maleic anhydride
 CANADA-Non-Domestic Substances List (NDSL): Non-applicable
 NTP (National Toxicology Program): Non-applicable
 Minnesota - Hazardous substances ERTK: maleic anhydride
 Rhode Island - Hazardous substances RTK: maleic anhydride
 OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096): Non-applicable
 Hazardous Air Pollutants (Clean Air Act): maleic anhydride
 CALIFORNIA LABOR CODE - The Hazardous Substances List: maleic anhydride
 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantities: maleic anhydride (5000 pounds)

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Other legislation:

Take into consideration other applicable federal, state, and local laws and local regulations.

SECTION 16: OTHER INFORMATION**Legislation related to safety data sheets:**

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

Texts of the legislative phrases mentioned in section 2:

H317: May cause an allergic skin reaction.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

29 CFR 1910.1200:

Acute Tox. 4: H302 - Harmful if swallowed.

Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.

Eye Dam. 1: H318 - Causes serious eye damage.

Resp. Sens. 1: H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.

Skin Sens. 1A: H317 - May cause an allergic skin reaction.

STOT RE 1: H372 - Causes damage to organs through prolonged or repeated exposure (Inhalation).

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

Occupational Safety & Health Administration (OSHA).

Abbreviations and acronyms:

LITHIUM COMPLEX GREASE #2

Printing: 6/8/2022

Date of compilation: 4/8/2022

Version: 1

SECTION 16: OTHER INFORMATION (continued)

IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5-day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
CL50: Lethal Concentration 50
EC50: Effective concentration 50
Log-POW: Octanol-water partition coefficient
Koc: Partition coefficient of organic carbon
IARC: International Agency for Research on Cancer
Date of compilation: 4/8/2022

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END OF SAFETY DATA SHEET