



Prepared according to Global Harmonized System (GHS) standards.

1	Substance/Product Identification
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*The Lubrizol Corporation
29400 Lakeland Boulevard
Wickliffe, Ohio 44092
Tel: (440) 943-4200*

Product Trade Name ASSEMBLY GREASE

CAS Number Not applicable for mixtures.

Synonyms None.

Generic Chemical Name Mixture.

Recommended Use Multipurpose.

Restrictions on use Not determined.

Created Date 20 December 2005

Preparation/Revision Date 11 September 2014

Transportation Emergency Phone No. FOR TRANSPORT EMERGENCY call CHEMTREC: (+1) 703-527-3887 (outside the U.S.), 1-800-424-9300 (in the U.S.)

MSDS No. 24401441-2318529-5015491-102103

2	Hazards Identification
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Appearance Brown viscous liquid.

Odor Mild

Classification Eye damage / irritation category 2B

Target Organs Not determined.

Signal Word Warning.

Hazard statement Causes eye irritation.

Other Hazards None identified.

Precaution(s) Wear eye protection / face protection. Wash thoroughly after handling.
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.

See Section 11 for complete health hazard information.

3	Composition/Information on Ingredients
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Hazardous Ingredients

Comp	CAS No.	Percentage (by wt.)	Carcinogen
Mineral oil	Mixture	From 20 to 29.9 percent	N/E
Alkenyl carboxylic acid	Confidential.	From 1 to 4.9 percent	N/E
Hexylene glycol	107-41-5	From 0.5 to 1.5 percent	N/E

The mineral oil contained in this material may be described by one or more of the following CAS Nos.: 64742-54-7, 64742-65-0, 64742-55-8, and 64742-56-9.

4	First Aid Measures
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Eyes Rinse cautiously with water for 30 minutes. Remove contact lenses, if present and easy to do. Get medical attention if eye irritation develops or persists. If eye irritation persists, get medical attention.

Skin Wash with soap and water for 20 minutes or until chemical is removed. Immediately remove all contaminated clothing. Get medical attention if irritation develops. Launder contaminated clothing before reuse and discard leather articles saturated with the material.

Inhalation Remove exposed person to fresh air. Call a poison center or doctor if exposed or you feel unwell.

Ingestion Swallowing is an unlikely route of exposure. DO NOT INDUCE VOMITING. Get immediate medical attention.

Advice for the protection of 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.

Additional Information Get medical attention advice if you feel unwell.

5	Fire Fighting Measures
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Flash Point 204 °C, 399.2 °F PMCC (Typical)
Extinguishing Media CO2, dry chemical, or foam. Water can be used to cool and protect exposed material.
Unsuitable Extinguishing Media Not determined.
Firefighting Procedures Wear full protective firegear including self-containing breathing apparatus operated in the positive pressure mode with full facepiece, coat, pants, gloves and boots. Do not use a water jet.
Unusual Fire & Explosion Hazards See section 10 for additional information.

6	Accidental Release Measures
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Personal precaution, protective equipment and emergency procedures Personal protective equipment must be worn. Ventilate area if spilled in a confined space or other poorly ventilated area.
Environmental precaution and protective procedures. Prevent entry into sewers and waterways.
Methods for clean-up and removal Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material.

7	Handling and Storage
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Pumping Temperature Not determined.
Maximum Handling Temperature 70 °C, 158 °F
Handling Procedures Use with adequate ventilation. Keep containers closed and upright when not in use. Avoid eye contact. Avoid repeated or prolonged skin contact. When handling, do not eat, drink, or smoke. Avoid drinking, tasting, swallowing or ingesting this product. Avoid breathing dust, fume, gas, mist, vapors or spray. Avoid overheating. Wash thoroughly after handling. Do not reuse empty containers. Empty container contains product residue which may exhibit hazards of product. Dispose of packaging or containers in accordance with local, regional, national and international regulations.
Maximum Storage Temperature 45 °C, 113 °F
Storage Procedures Store in a cool, dry, well-ventilated area. Store separately from incompatible materials. Keep container closed when not in use. Do not store in open, unlabeled or mislabeled containers. See section 10 for incompatible materials.
Maximum Loading Temperature Not determined.

8	Exposure Controls/Personal Protection
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Exposure Limits

EU
Not applicable.

UK

Comp	CAS No.	Long Term (8 Hours T.W.A.)	Short Term (15 mins.)
Hexylene glycol	107-41-5	25 ppm	25 ppm

Ireland

Comp	CAS No.	Long Term (8 Hours T.W.A.)	Short Term (15 mins.)
Hexylene glycol	107-41-5	25 ppm	25 ppm

India
Not applicable.

Cyprus
Not applicable.

Comp	Exposure Guidelines					
	OSHA		ACGIH		Other	
	TWA	STEL	TWA	STEL	TWA	STEL
Hexylene glycol	N/E	N/E	N/E	25 ppm (c)	N/E	N/E

- (s) - Skin exposure
- (p) - Proposed limit
- (c) - Ceiling exposure
- (l) - Recommended exposure limit
- (u) - Supplier recommended exposure limit

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Other Exposure Limits	Contains mineral oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg per cubic meter, ACGIH TWA of 5 mg per cubic meter.
Engineering Controls	Material should be handled in enclosed vessels and equipment, in which case general (mechanical) room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. Additional ventilation or exhaust may be required to maintain air concentrations below recommended exposure limits.
Personal Protective Equipment	
Respiratory Protection	Use full face respirator with a combination organic vapor and dust/mist cartridge if the 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.
Eye Protection	Safety glasses. If potential for splash or mist exists, wear chemical goggles or faceshield.
Gloves Procedures	Nitrile. Neoprene. Gloves are recommended when handling this material. Unless material is used in a process where the use of gloves would pose sufficient risk of injury to the user/operator. Consult with an industrial hygienist to determine the appropriate clothing protection for your specific use of this material.
Clothing Recommendation	Long sleeve shirt is recommended. Use chemically protective boots when necessary to avoid contaminating shoes. Do not wear rings, watches or similar apparel that could entrap the material and cause a skin reaction. Launder contaminated clothing before reuse.
Hygiene Measures	Wash thoroughly after handling this product. Do not eat, drink or smoke when using this product.

9	Physical and Chemical Properties
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Flash Point	204 °C, 399.2 °F PMCC (Typical)
Upper Flammable Limit	Not determined.
Lower Flammable Limit	Not determined.
Autoignition Point	Not determined.
Decomposition Temperature	Not determined.
Explosion Data	Material does not have explosive properties.
Vapor Pressure	Not determined.
pH	Not determined.
Specific Gravity	1.18 (15.6 °C)
Bulk Density	Not determined.
Water Solubility	Insoluble.
Percent Solid	Not determined.
Percent Volatile	Not determined.
Volatile Organic Compound	Not determined.
Vapor Density	Not determined.
Evaporation Rate	Not determined.
Water/Octanol Coefficient	Not determined.
Odor	Mild
Odor Threshold	Not determined.
Appearance	Brown viscous liquid.
Viscosity	850 Centistokes (40 °C) 90 Centistokes (100 °C)
Boiling Point	Not determined.
Boiling Point Range	Not determined.
Pour Point Temperature	-27 °C, -17 °F
Melting / Freezing Point	Not determined.

The above data are typical values and do not constitute a specification. Vapor pressure data are calculated unless otherwise noted.

10	Stability and Reactivity
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Stability	Material is normally stable at moderately elevated temperatures and pressures.
Decomposition Temperature	Not determined.
Incompatibility	Oxidizing agents.
Polymerization	Will not occur.
Thermal Decomposition	Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion. Under combustion conditions, oxides of the following elements will be formed: calcium.
Conditions to Avoid	Not determined.

11	Toxicological Information
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-- ACUTE EXPOSURE --

Eye Irritation	Weak to moderate eye irritant. Does not meet EU R36 criteria. Based on data from similar materials.
Skin Irritation	May cause slight skin irritation. Does not meet EU R38 criteria. Based on data from similar materials. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.
Respiratory Irritation	May cause nose, throat, and lung irritation. Based on data from similar materials. Material may aggravate an underlying pulmonary disease.
Dermal Toxicity	The LD50 in rabbits is > 2000 mg/Kg. Based on data from components or similar materials.
Inhalation Toxicity	High concentrations may cause headaches, dizziness, weakness, irritability and other behavioral changes, nausea, and vomiting.
Oral Toxicity	The LD50 in rats is > 10,000 mg/Kg. Based on data from components or similar materials. Ingestion may cause CNS depression.
Dermal Sensitization	This product contains hexylene glycol which has been reported to cause dermatitis in sensitive individuals.
Inhalation Sensitization	No data available to indicate product or components may be respiratory sensitizers.
Aspiration Hazard	Not determined.

-- CHRONIC EXPOSURE --

Chronic Toxicity	No data available to indicate product or components present at greater than 1% are chronic health hazards.
Carcinogenicity	This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Reproductive Toxicity	No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.
Teratogenicity	No data available to indicate product or any components contained at greater than 0.1% may cause birth defects.

-- ADDITIONAL INFORMATION --

Other	No other health hazards known.
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12	Ecological Information
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-- ENVIRONMENTAL TOXICITY --

Freshwater Fish Toxicity	The acute LC50 is 100 - 1000 mg/L based on component data.
Freshwater Invertebrates Toxicity	Not determined.
Algal Inhibition	Not determined.
Saltwater Fish Toxicity	Not determined.
Saltwater Invertebrates Toxicity	Not determined.
Bacteria Toxicity	Not determined.
Miscellaneous Toxicity	Not determined.

-- ENVIRONMENTAL FATE --

Biodegradation	At least 25% of the components in this product show limited biodegradation based on OECD 301-type test data. At least 25% of the components in this product show moderate biodegradation based on OECD 302-type test data.
Bioaccumulation	1 - 10% of the components potentially bioconcentrate, based on octanol/water coefficients.
Soil Mobility	Not determined.
Notes	None known.

13	Disposal Considerations
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Disposal Considerations	All disposal practices must be in accordance with local, regional, national and international regulations. Do not dispose in landfill.
Contaminated Containers or Packaging	Dispose of packaging or containers in accordance with local, regional, national and international regulations.

14	Transport Information
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ICAO/IATA I	Not regulated.
ICAO/IATA II	Not regulated.
IMDG	Not regulated.
IMDG EMS Fire	Not applicable.
IMDG EMS Spill	Not applicable.
IMDG MFAG	Not applicable.

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MARPOL Annex II Not determined.
USCG Compatibility Not determined.
DOT NAERG Not applicable.

Review classification requirements before shipping materials at elevated temperatures.

15	Regulatory Information
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-- Global Chemical Inventories --

USA All components of this material are on the US TSCA Inventory or are exempt.

Other TSCA Reg. None known.
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.
Australia All components are in compliance with chemical notification requirements in Australia.
New Zealand All components are in compliance with chemical notification requirements in New Zealand.
Canada All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List.
Switzerland All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.
Korea All components are in compliance in Korea.
Philippines All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969).
China All components of this product are listed on the Inventory of Existing Chemical Substances in China.
Taiwan All components of this product are listed on the Taiwan inventory.
Miscellaneous Regulatory Information Not determined.

-- Other U.S. Federal Regulations --

SARA Ext. Haz. Subst. This product does not contain greater than 1.0% of any chemical substance on the SARA Extremely Hazardous Substances list.

SARA Section 313 This product does not contain greater than 1.0% (greater than 0.1% for carcinogenic substance) of any chemical substances listed under SARA Section 313.

SARA 311 Classifications

Acute Hazard	Yes
Chronic Hazard	Yes
Fire Hazard	No
Reactivity Hazard	No

CERCLA Hazardous Substances None known.

-- State Regulations --

Cal. Prop. 65 This product does not intentionally contain any chemicals known by the State of California to cause cancer and/or birth defects. Moreover, we do not routinely analyze its products for impurities which may be such chemicals.

-- Product Registrations --

U.S. Fuel Registration Not applicable.
Finnish Registration Number Not Registered
Swedish Registration Number Not Registered
Norwegian Registration Number Not Registered
Danish Registration Number Not Registered
Swiss Registration Number Not Registered
Italian Registration Number Not Registered

-- Other / International --

Miscellaneous Regulatory Information Not determined.

16	Other Information
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Issuing Department Product Safety and Compliance Department (440-943-1200)
Created Date 20 December 2005
Preparation/Revision Date 11 September 2014

US NFPA Codes

Health	Fire	Reactivity	Special
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1	1	0	N/E
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HMIS Codes

Health	Fire	Reactivity
1*	1	0

Revision Indicators

Section: 3 Hazardous ingredients.

Changed: 11 September 2014

Section: 15 California proposition 65.

Changed: 11 September 2014

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