

PRODUCT NAME: ABRO Red #2 Lithium Grease
PRODUCT NUMBER/SIZE: LG-920

Revision Date: 7/23/2015

SECTION 1 Identification of the Substance and of the Company/Undertaking

MANUFACTURER'S NAME: ABRO INDUSTRIES, INC.
ADDRESS: 3580 Blackthorn Drive
South Bend, IN 46628 USA
PRODUCT DESCRIPTION: Industrial Grease
COMPANY PHONE: 574-232-8289
EMERGENCY 24-HR TELEPHONE: Chemtrec: US/Canada 1-800-424-9300
International +1-703-527-3887

SECTION 2 Hazards Identification

Classification:

This product does not meet any GHS hazard classification. This material is not considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200. No significant hazard as per GHS.

Label Pictogram(s): None required.

Signal Word: None required.

Hazard Phrases: Not expected to be a health hazard when used under normal conditions. Prolonged or repeated skin contact without proper cleaning may clog the skin pores resulting disorders like acne/folliculitis. Used grease may contain harmful impurities/ harmful extraneous substances. Not classified as flammable but will burn. Not classified as an environmental hazard under GHS criteria.

Precautionary Phrases: Wear protective gloves while handling. Wear eye and face protection. Wash hands thoroughly after handling.

Response: If on skin, wash with plenty of soap and water. Remove contaminated clothing and wash thoroughly before re-use. If skin irritation occurs, get medical advice. If in eyes, wash with water for several minutes, in case of contact lenses, remove and wash with plenty of water. In case of irritation, get medical attention.

Storage / Disposal: Store the product in well-ventilated area. Keep the container straight lid upside. Do not lay down upside down or do not keep container horizontally. This product has a natural tendency to squeeze oil if not kept properly. Take expert advice of local regulatory agency for disposing this product.

Other: This product must not be used in applications other than recommended in section 1 without taking the advice from supplier/manufacturer. Not classified as an environmental hazard under GHS criteria.

Hazard not otherwise classified (HNOC): None as classified under 29 CFR 1900.1200

SECTION 3
Composition/Information on Ingredients

COMPONENTS	CAS Number	Percent by weight
Fatty Acid	67701-06-8	8-13 %
12 hydroxy stearic acid	106-14-9	1-5 %
Stearic acid	57-11-4	1-4 %
Lithium Hydroxide	1310-66-3	1-3 %
Fatty acid derivative of 4,5-dihydro-1H-imidazole	Not Available (Supplier Trade Secret)	< 1.0 %
Base oil	64742-52-5	70-90 %
Red Dye	Not Available (Supplier Trade Secret)	< 0.05 %

As per 29 CFR 1910.1200 paragraph (j), formulation is considered as trade secret and therefore specific chemical names and their percentages of components used have not been disclosed. The details about their specific chemical names and their percentages may be provided on request to health professionals, authorized representatives of regulatory authority, employees concerned in accordance with applicable provisions of this paragraph.

SECTION 4
First Aid Measures

GENERAL INFORMATION: Not expected to be a health hazard if used under normal conditions.

EYE CONTACT: Immediately flush with large quantities of cool water for at least 15 minutes. Get medical attention.

SKIN CONTACT: Remove contaminated clothes. Flush exposed area with plenty of water followed by washing by soap, if available. If persistent irritation occurs, obtain medical attention. If product is injected into or under the skin due to any reason, the victim, regardless of size or appearance of wound, victim should be brought immediately to medical attention for emergency surgical needs. Though the initial symptoms due to high pressure injection may be minimal / absent, early surgical treatment may significantly reduce the extent of injury.

INHALATION: Under normal conditions of intended use, this material is not expected to be inhalation hazard. If some symptom exist remove to fresh air. If not breathing, give artificial respiration. Get medical attention

INGESTION: In general no treatment is necessary unless large quantities are swallowed, however, it is advisable to take medical attention. Do not induce vomiting unless directed by medical personnel. Do not give anything by mouth by an unconscious person.

SYMPTOMS OR EFFECTS: No information available.

RECOMMENDATIONS FOR IMMEDIATE MEDICAL CARE OR SPECIAL TREATMENT: SELF-PROTECTION FOR FIRST AIDER: When administering the first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.

SECTION 5
Fire Fighting Measures

RECOMMENDED EXTINGUISHING MEDIA: Water Spray (fog), dry chemical, foam, or carbon dioxide, sand to extinguish flames. **Unsuitable extinguishing media:** Water stream may splash burning liquid and spread fire.

UNUSUAL OR SPECIFIC FIRE AND EXPLOSION HAZARDS: Hazardous combustion products may include a complex mixture of airborne solid and liquid particulates and gases (smoke), carbon monoxide unidentified inorganic and organic compounds.

FIREFIGHTING INSTRUCTIONS AND PROTECTIVE EQUIPMENT: Proper protective equipment include chemical resistant gloves to be worn, chemical resistant suit is recommended when large contact with spill product is expected. Self-contained breathing apparatus (SCBA) must be worn when approaching a fire in confined area. Select fire fighter clothing approved by relevant standard.

SECTION 6 Accidental Release Measures

PERSONAL PRECAUTIONS: Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch and walk through spill area. Do not touch damaged container or spilled material unless wearing appropriate protective clothing/equipment. Ventilate the closed area.

EMERGENCY PROCEDURES: Isolate the spill / leak area in all directions for about 50 meters (150 ft.) for liquids and about 25 meters (75 ft.) for solids and semi-solids. Eliminate all ignition sources (no smoking, flares, sparks / flames in close vicinity). Keep unauthorized person away and ventilate closed space before entering

METHODS AND MATERIALS FOR CONTAINMENT: Use appropriate measures for containment of spilled material to the environment. Prevent from entering/ spreading to drain, water, river, ditches by using sand, earth, floor dryers or other appropriate barriers.

CLEANUP PROCEDURES: Shovel into suitable properly marked container for disposal or reclamation in accordance with local regulations. Refer to section 8 – exposure control / personal protection and section 13- disposal considerations.

SECTION 7 Handling and Storage

STORAGE RECOMMENDATIONS: Store in well-ventilated area, if risk on vapor inhalation is there. Use the information in this data sheet as input for risk management arising due to local conditions which help to manage safe handling of this product. Keep containers tightly closed, in well-ventilated areas but covered, avoiding contact with rain or other water ingress possibilities. Keep the storage place cool preferably <120 °F / <50 °C. Higher temperature may create pressure buildup inside container and chances of container bursting or leakage may occur under aggravated conditions. Keep away from other oxidizing and incompatible materials.

HANDLING PRECAUTIONS: Avoid prolonged and repeated contact with skin. Avoid inhaling the vapors/mist. When handling the drums, kegs, pails etc., proper safety shoes, and other protective clothes, safety glasses etc. should be worn. Dispose appropriately any contaminated rags/material as per prevailing local allowable practices. Keep containers in closely tight and, cool and well ventilated areas. This material should not be used for any other purpose than the intended use as per section 1 without the expert advice.

SECTION 8 Exposure Controls/Personal Protection

EXPOSURE LIMITS:

Ingredient	Source	Type	Value
Lithium hydroxide mono hydrate	AIHA / WEEL	Ceiling	1.8 mg/m ³
Lithium stearate	ACGIH / TLV	---	10 mg/m ³
Mineral oil	ACGIH	TWA	5 mg/m ³

ENGINEERING CONTROLS: Adequate ventilation systems may be needed to control concentrations of airborne contaminants above permissible threshold applicable limits. Due to semi-solid nature of the product, generation of mist and dusts is unlikely to occur. Monitoring of the concentration of substances in the breathing zone of workers or in general workplace may be required to confirm the compliance with local governing authority. Minimize release to the environment. Follow best practices for site management and disposal of waste as per local regulations

RECOMMENDED PERSONAL PROTECTIVE MEASURES:

Respiratory: In case of insufficient ventilation, use suitable respiratory equipment

Eye/Face: Wear safety goggles

Skin/Body: Wear safety shoes and protective gloves

SPECIAL PPE REQUIREMENTS: None.

OTHER INFORMATION:

Biological exposure index (BEI): No biological limit allocated

PNEC related information: Data not available.

**SECTION 9
Physical and Chemical Properties**

Appearance: Red semi-solid.

Upper/lower flammability or explosive limits: No data available.

Odor: Slight hydrocarbon odor.

Vapor pressure: < 0.13 kPa (< 1 mm Hg)

Odor threshold: Data not available.

Vapor density: < 1 (air = 1)

pH: Not applicable.

Relative density / Specific gravity: 0.87, 7.506 (lbs./ gal.)

Melting point/freezing point: No data available.

Solubility: No data available.

Initial boiling point and boiling range: No data available.

Flash point: 400° F / 204° C (COC)

Evaporation rate: No data available.

Flammability (solid, gas): No data available.

Upper/lower flammability or explosive limits: No data available.

Vapor pressure: < 0.13 kPa (< 1 mm Hg) at ambient temperature

Vapor density: < 1

Partition coefficient: n-octanol/water: No data available.

Auto-ignition temperature: No data available.

Decomposition temperature: No data available.

Viscosity: No data available.

Other Information:

Explosive Properties: Not classified

Oxidizing Properties: No data available.

Electrical conductivity: Though no data available, this material is not expected to be a static accumulator.
VOC, % wt., ASTM D-972: 1

SECTION 10 Stability and Reactivity

REACTIVITY: No reactivity is expected under normal conditions of intended use. However, under high temperature or adverse operating conditions thermal / chemical decomposition of the product may be possible.

CHEMICAL STABILITY: No hazardous reaction is expected under normal conditions of temperature and pressure.

POSSIBILITY OF HAZARDOUS REACTIONS / POLYMERIZATION: Hazardous polymerization is not expected. Reacts with strong oxidizing agents

CHEMICAL INCOMPATIBILITIES: Strong oxidizing agents.

CONDITION TO AVOID: Extreme temperature and direct sunlight / heat /flame.

HAZARDOUS DECOMPOSITION PRODUCTS: Hazardous decomposition is not expected to form under normal conditions of storage.

SECTION 11 Toxicological Information

Routes of Exposure: No information available.

Delayed, Immediate and Chronic Effects: No information available.

Toxicity Measures: See information below.

Description of Symptoms: No information available.

Carcinogen Information: See information below.

Information on toxicological effect:

Basis of assessment: Information given hereby is based on the components and the toxicology of similar products and the data indicated here are representative of primarily base oil which is present in majority.

Acute oral toxicity Expected to be low toxicity; LD 50 (rat) > 5000 mg/kg

Acute dermal toxicity Expected to be low toxicity; LD 50 (rat) > 3000 mg/kg

Acute inhalation toxicity Not determined.

Skin corrosion / irritation: Expected to be slightly irritating prolonged/repeated contact with skin without adequate cleaning may clog the pores of the skin , may result disorder such as oil acne/folliculitis.

Serious eye damage /irritation Expected to be slightly irritating.

Respiratory /skin sensitization Not determined.

Aspiration hazard Not expected to be aspiration hazard.

Germ cell mutagenicity Not expected to be a mutagenic hazard.

Carcinogenicity Not considered to be carcinogenic as it contain severely hydrotreated mineral oils which are reported to be non-carcinogenic in lab animal studies. The class of oils used in

making this product are not classified as carcinogenic by IARC. **Highly refined base oil blend** (IP 346 < 3 %) ACGIH group A4; not classified as human carcinogen IARC 3; not classified as to carcinogen to humans. GHS / CLP, no carcinogenicity classification. This material is not known to contain any chemical listed as a carcinogen or suspected carcinogen by OSHA Hazard Communication Standard 29CFR 1910.1200, IARC, or the National Toxicology Program (NTP) at a concentration greater than 0.1%.

SECTION 12 Ecological Information

TOXICITY TEST DATA: Eco-toxicological data has not been determined specifically on this product. The information given herewith are based on the information given on eco-toxicity of components and/or on similar products. The information given here are representative of the product as whole and not as individual components.

PERSISTANCE AND DEGREDDATION: Sparingly soluble mixture in aqueous media. Not toxic to fish but may coat gill structure and cause suffocation if spilled. This product may cause gastrointestinal distress in birds and mammals through ingestion. Expected to be not readily biodegradable. The major oil component expected to biodegrade over period of 100-120 days in aerobic environment at temperature above 70 F (21°C), however finished product contain component that may persist in the environment.

BIOACCUMULATION POTENTIAL: May contain component that bio-accumulates.

SOIL-GROUNDWATER MOBILITY: Product is semi-solid in nature in most conditions and may absorb to soil and may not be mobile. It floats on water.

OTHER ADVERSE EFFECTS: Product contains the components that have been classified non-volatile in nature and therefore not expected to release to environment in significant quantities.

SECTION 13 Disposal Considerations

RECOMMENDED DISPOSAL PROCEDURES: Try to minimize the product waste by using best applicable practices. It is the responsibility of the waste generator to evaluate the waste classification and appropriate disposal methodology in accordance with the applicable regulation. Do not dispose in to environment, in drain or in river / ponds / water reservoirs.

SPECIAL DISPOSAL INSTRUCTIONS: To be disposed in accordance with local prevailing and allowable regulations.

OTHER INFORMATION: No additional information available.

SECTION 14 Transport Information

Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (ocean, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport.

U.S. DOT This product is not regulated as a DOT hazardous material.

UN/ID Number: Not applicable

Proper shipping name: Not applicable

Hazard class: Not applicable
Packing Group: Not applicable
Exceptions: Not applicable
Environmental Hazards: Not applicable
Transport in Bulk: Not applicable
Special Precautions: Not applicable

IMO/IMDG This product is not regulated as a dangerous good for transport by vessel.

UN/ID Number: Not applicable
Proper shipping name: Not applicable
Hazard class: Not applicable
Packing Group: Not applicable
Exceptions: Not applicable
Environmental Hazards: Not applicable
Transport in Bulk: Not applicable
Special Precautions: Not applicable

ICAO/IATA This product is not regulated as a dangerous good for transport by aircraft.

UN/ID Number: Not applicable
Proper shipping name: Not applicable
Hazard Class: Not applicable
Packing Group: Not applicable
Exceptions: Not applicable
Environmental Hazards: Not applicable
Transport in Bulk: Not applicable
Special Precautions: Not applicable

Canada This product is not regulated as a dangerous good in Canada.

(TDG) UN/ID Number: Not applicable
Proper shipping name: Not applicable
Hazard class: Not applicable
Packing Group: Not applicable
Exceptions: Not applicable
Environmental Hazards: Not applicable
Transport in Bulk: Not applicable
Special Precautions: Not applicable

Europe This product is not regulated as a dangerous good under ADR/RID

(ADR/RID) UN/ID Number: Not applicable
Proper shipping name: Not applicable
Hazard class: Not applicable
Packing Group: Not applicable
Exceptions: Not applicable
Environmental Hazards: Not applicable
Transport in Bulk: Not applicable
Special Precautions: Not applicable

SECTION 15
Regulatory Information

OSHA Hazard Communication Standard: This material is not considered hazardous in accordance with OSHA HAzCom 2012, 29 CFR 1910.1200.

US Inventory list: All components are listed or exempted (TSCA 8b)

SARA (302/304): No products were found

SARA (311/312): Classification: Immediate (acute) health hazard, delayed (chronic) health hazard.

SARA (313) Toxic Release Inventory: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

Massachusetts: None of the components are listed

New York: None of the components are listed

New Jersey: lithium hydroxide is listed

WHMIS: This product is not a controlled product.

Canadian NPRI: none of the components are listed

CEPA toxic substance: none of the components are listed

Canadian inventory list: all components are listed or exempted

Australia Inventory (AICS): All components are listed or exempted

China Inventory (IECSC): All components are listed or exempted

Japan Inventory: Not determined

Korea Inventory: All components are listed or exempted

Malaysia Inventory (EHS Register): Not determined

New Zealand inventory of Chemicals (NZIoC): All components are listed or exempted

Philippines Inventory (PICCS): All components are listed or exempted

Taiwan Inventory (CSNN): Not determined

Component	Fire Hazard	Sudden Release of Pressure	Reactive	Acute Health Hazard	Delayed Health Hazard
Base Oil	No	No	No	No	Yes
Lithium Stearate	Yes	No	No	Yes	Not Known

NFPA 704

Health 1

Fire 1

Reactivity 0

Specific None

NPCA-HMIS

Health 1

Fire 1

Reactivity 0

Specific N/A

Key

0 = Minimal

1 = Slight

2 = Moderate

3 = Serious

**SECTION 16
Other Information**

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon, information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

ABBREVIATIONS:

NG="NOT GIVEN"

<="LESS THAN"

ND = Not Determined

BT="BETWEEN"

>="GREATER THAN"

NA = Not Applicable