Lubegard® Multi-System Friction Modifier

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2024
Issue date: 9/22/2025 Revision date: 9/22/2025 Version: 1.0

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Product name : Lubegard® Multi-System Friction Modifier
Product code : 42004

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Lubricant, Additive

1.4. Supplier's details

Manufacturer
International Lubricants, Inc
309 South Cloverdale Street, D26
Seattle, WA 98108
USA
T 206-762-5343
contact@lubegard.com

1.5. Emergency phone number

Emergency number : VelocityEHS (formally Chemtel) - Phone: (813) 248-0573 or 1-800-255-3924 (within the United States, Canada, Puerto Rico, and the U.S. Virgin Islands)

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Skin sensitization, Category 1 — May cause an allergic skin reaction.

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : May cause an allergic skin reaction
Precautionary statements (GHS US) : If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Avoid breathing dust, fume, gas, mist, spray, vapors.
Contaminated work clothing must not be allowed out of the workplace.
Wear eye protection, face protection, protective clothing, protective gloves.
If on skin: Wash with plenty of water.
If skin irritation or rash occurs: Get medical advice or attention.
Take off contaminated clothing and wash it before reuse.

Dispose of contents and container to a hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

Not applicable

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	Conc. (% w/w)
Phosphorous acid, tridodecyl ester	CAS-No.: 3076-63-9	3 - 7
1,3,4-Thiadiazole, 2,5-bis(octyldithio)-	CAS-No.: 13539-13-4	0.1 - <1
Phenol	CAS-No.: 108-95-2	0.1 - <1

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

First-aid measures after skin contact : IF ON SKIN: Wash with plenty of Water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : 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 advice/attention.

First-aid measures after ingestion : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

Symptoms/effects after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause an allergic skin reaction.

Symptoms/effects after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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

Other medical advice or treatment : Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry chemical. Carbon dioxide (CO2). Foam.
Unsuitable extinguishing media : Do not use water jet.

5.2. Specific hazards arising from the chemical

Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon. Irritating vapors.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Cool closed containers exposed to fire with water spray.
Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

For non-emergency personnel

No additional information available

For emergency responders

Environmental precautions : Prevent entry to sewers and public waters.

6.2. Methods and materials for containment and cleaning up

For containment : Stop leak if safe to do so. Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.
Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

For further information refer to section 8: "Exposure controls/personal protection"

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin, eyes and clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Provide adequate ventilation. Wear personal protective equipment.
Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Take off contaminated clothing and wash it before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including incompatibilities

Storage conditions : Keep out of the reach of children. Keep container tightly closed. Protect from heat and direct sunlight. Store in a dry, cool and well-ventilated place. Keep away from combustible materials.
Specific end uses : Lubricant. Additive.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

Phenol (108-95-2)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH® TLV® TWA	5 ppm
ACGIH chemical category	Not Classifiable as a Human Carcinogen, Skin - potential significant contribution to overall exposure by the cutaneous route
USA - ACGIH - Biological Exposure Indices	
BEI (BLV)	250 mg/g Kreatinin Parameter: Phenol with hydrolysis - Medium: urine - Sampling time: end of shift (background, nonspecific)
USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA	19 mg/m³
	5 ppm
Limit value category (OSHA)	prevent or reduce skin absorption
USA - IDLH - Occupational Exposure Limits	
IDLH	250 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA)	19 mg/m³
	5 ppm
NIOSH REL (Ceiling)	60 mg/m³
	15.6 ppm
US-NIOSH chemical category	SK: SYS(FATAL)-DIR(COR) Apr 2011

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Hand protection:

Wear suitable gloves resistant to chemical penetration. Consult glove manufacturer's product information on material suitability and material thickness.

Eye protection:

Safety glasses or goggles are recommended when using product.

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. SDSs cannot provide detailed and complete respiratory protection guidelines. Selection of respiratory protection must be done by a qualified person who has assessed the work environment.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Oily liquid.
Color	:	Brownish black
Odor	:	Pungent Characteristic petroleum
Odor threshold	:	Normal
pH	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	198 °C / 388 °F (Cleveland open cup)
Flammability (solid, gas)	:	Not flammable.
Vapor pressure	:	No data available
Relative vapor density at 20°C	:	No data available
Relative density	:	0.89
Solubility	:	Insoluble.
Partition coefficient n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	26.6 mm²/s (Typical)
Explosion limits	:	No data available
Particle characteristics	:	No data available

Phenol	
Boiling point	181.8 °C
Flash point	79 °C
Auto-ignition temperature	715 °C
Vapor pressure	0.48 hPa (at 20 °C)
Particle characteristics	No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Incompatible materials.

10.5. Incompatible materials

Strong oxidizing agents. Strong reducing agents.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Irritating vapors.

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified.
Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Phenol (108-95-2)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
STOT-single exposure : Not classified

Phosphorous acid, tridodecyl ester (3076-63-9)	
STOT-single exposure	May cause respiratory irritation.

Phenol (108-95-2)	
STOT-single exposure	Causes damage to organs.

STOT-repeated exposure : Not classified

Phenol (108-95-2)	
LOAEL (dermal,rat/rabbit,90 days)	260 mg/kg body weight Animal: rabbit
NOAEL (dermal,rat/rabbit,90 days)	130 mg/kg body weight Animal: rabbit
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Lubegard® Multi-System Friction Modifier	
Viscosity, kinematic	26.6 mm²/s (Typical)

1,3,4-Thiadiazole, 2,5-bis(octyldithio)- (13539-13-4)	
Viscosity, kinematic	No data available

Phosphorous acid, tridodecyl ester (3076-63-9)	
Viscosity, kinematic	No data available

Phenol (108-95-2)	
Viscosity, kinematic	No data available

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.
Symptoms/effects after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause an allergic skin reaction.

Symptoms/effects after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

Hazardous to the aquatic environment, short–term (acute) : Not classified

Hazardous to the aquatic environment, long–term (chronic) : Not classified

Phenol (108-95-2)	
LC50 - Fish [1]	11.9 – 50.5 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA)
EC50 - Crustacea [1]	4.24 – 10.7 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 - Fish [2]	20.5 – 25.6 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA)
EC50 - Crustacea [2]	10.2 – 15.5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h - Algae [1]	187 – 279 mg/l (Species: Desmodesmus subspicatus [static])
EC50 72h - Algae [2]	217.6 mg/l Test organisms (species): Dunaliella tertiolecta
EC50 96h - Algae [1]	46.42 mg/l (Species: Pseudokirchneriella subcapitata)
EC50 96h - Algae [2]	0.0188 – 0.1044 mg/l (Species: Pseudokirchneriella subcapitata [static])
NOEC (chronic)	0.16 mg/l Test organisms (species): Daphnia magna Duration: '16 d'
NOEC chronic fish	0.077 mg/l Test organisms (species): other:Cirrhina mrigala Duration: '60 d'

12.2. Persistence and degradability

Lubegard® Multi-System Friction Modifier	
Persistence and degradability	Not established.

1,3,4-Thiadiazole, 2,5-bis(octyldithio)- (13539-13-4)	
Persistence and degradability	Rapidly degradable

Phosphorous acid, tridodecyl ester (3076-63-9)	
Persistence and degradability	Rapidly degradable

Phenol (108-95-2)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

Lubegard® Multi-System Friction Modifier	
Bioaccumulative potential	Not established.

Phenol (108-95-2)	
BCF - Fish [1]	(17.5 dimensionless (whole body w.w.)

Phenol (108-95-2)	
Partition coefficient n-octanol/water	1.47 (at 30 °C (at pH 3-8)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone : Not classified

Fluorinated greenhouse gases : No

Other information : No other effects known.

SECTION 13 Disposal considerations

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

SECTION 14 Transport information

In accordance with DOT

14.1. UN number

UN-No. (DOT) : Not regulated

14.2. UN Proper Shipping Name

Proper Shipping Name (DOT) : Not regulated

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not regulated

14.4. Packing group

Packing group (DOT) : Not regulated

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

Not applicable

SECTION 15 Regulatory information

15.1. Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

15.2. International regulations

No additional information available

15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16 Other information

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2024

Revision date	:	9/22/2025
Issue date	:	9/22/2025
Other information	:	None.
Prepared by	:	Nexreg Compliance Inc. www.Nexreg.com

Safety Data Sheet (SDS), USA

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