

LUBRI-LOY.

Issuing Date 23rd-Oct-2016

Version 1

Safety Data Sheet

1. Identification

Product number 10018-5
Product identifier Lubri-Moly Dry Film Bulk
Revision date 10-23-2016
Company information The Lubri-Loy Company
 150 Enterprise Dr.
 Wentzville, MO 63385 United States
Company phone 1-636-561-5007
Emergency telephone US 1-866-836-8855
Emergency telephone outside US 1-952-852-4646
Version # 01

Recommended use LUBRICANT
Recommended restrictions None known.

2. Hazard(s) identification

Physical hazards Flammable liquids Category 2
Health hazards Skin corrosion/irritation Category 2
 Serious eye damage/eye irritation Category 2A
 Sensitization, skin Category 1
 Germ cell mutagenicity Category 1B
 Carcinogenicity Category 2
 Reproductive toxicity Category 2
 Specific target organ toxicity, single exposure Category 3 narcotic effects
 Specific target organ toxicity, repeated exposure Category 2
 Aspiration hazard Category 1

OSHA defined hazards Not classified.

Label elements



Signal word Danger
Hazard statement Highly flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause drowsiness or dizziness. May cause genetic defects. Suspected of causing cancer. Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement
Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

Response	If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Environmental hazards	Hazardous to the aquatic environment, acute hazard Category 2 Hazardous to the aquatic environment, long-term hazard Category 2
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Acetone		67-64-1	20 - 40
Heptane, branched, cyclic and linear		426260-76-6	10 - 20
Solvent Naphtha (Petroleum), Light Aliphatic		64742-89-8	10 - 20
Cyclohexane		110-82-7	2.5 - 10
Magnesium Silicate		14807-96-6	2.5 - 10
n-Heptane		142-82-5	2.5 - 10
Toluene		108-88-3	2.5 - 10
Isopropyl Alcohol		67-63-0	1 - 2.5
Methyl Ethyl Ketoxime		96-29-7	0.1 - 1
n-Hexane		110-54-3	0.1 - 1
Solvent Naphtha (Petroleum), Light Aromatic		64742-95-6	0.1 - 1
Other components below reportable levels			10 - 20

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards Highly flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

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

Components	Type	Value
Acetone (CAS 67-64-1)	PEL	2400 mg/m ³ 1000 ppm
Cyclohexane (CAS 110-82-7)	PEL	1050 mg/m ³ 300 ppm
Isopropyl Alcohol (CAS 67-63-0)	PEL	980 mg/m ³ 400 ppm
n-Heptane (CAS 142-82-5)	PEL	2000 mg/m ³ 500 ppm
n-Hexane (CAS 110-54-3)	PEL	1800 mg/m ³ 500 ppm

US. OSHA Table Z-2 (29 CFR 1910.1000)

Components	Type	Value
Toluene (CAS 108-88-3)	Ceiling TWA	300 ppm 200 ppm

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form
Magnesium Silicate (CAS 14807-96-6)	TWA	0.3 mg/m ³	Total dust.
		0.1 mg/m ³	Respirable.
		20 mppcf 2.4 mppcf	Respirable.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Acetone (CAS 67-64-1)	STEL	500 ppm	
	TWA	250 ppm	
Cyclohexane (CAS 110-82-7)	TWA	100 ppm	
	STEL	400 ppm	
Magnesium Silicate (CAS 14807-96-6)	TWA	200 ppm	Respirable fraction.
	TWA	2 mg/m ³	
n-Heptane (CAS 142-82-5)	STEL	500 ppm	
	TWA	400 ppm	
n-Hexane (CAS 110-54-3)	TWA	50 ppm	
Toluene (CAS 108-88-3)	TWA	20 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Acetone (CAS 67-64-1)	TWA	590 mg/m ³ 250 ppm	
		1050 mg/m ³	
Cyclohexane (CAS 110-82-7)	TWA	300 ppm	
		1225 mg/m ³	
Isopropyl Alcohol (CAS 67-63-0)	STEL	500 ppm	
		980 mg/m ³ 400 ppm	
Magnesium Silicate (CAS 14807-96-6)	TWA	2 mg/m ³	Respirable.
n-Heptane (CAS 142-82-5)	Ceiling	1800 mg/m ³ 440 ppm	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
	TWA	350 mg/m3	
		85 ppm	
n-Hexane (CAS 110-54-3)	TWA	180 mg/m3	
		50 ppm	
Toluene (CAS 108-88-3)	STEL	560 mg/m3	
		150 ppm	
	TWA	375 mg/m3	
		100 ppm	

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
Methyl Ethyl Ketoxime (CAS 96-29-7)	TWA	36 mg/m3
		10 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	25 mg/l	Acetone	Urine	*
Isopropyl Alcohol (CAS 67-63-0)	40 mg/l	Acetone	Urine	*
n-Hexane (CAS 110-54-3)	0.4 mg/l	2,5-Hexanedion, without hydrolysis	Urine	*
Toluene (CAS 108-88-3)	0.3 mg/g	o-Cresol, with hydrolysis	Creatinine in urine	*
	0.03 mg/l	Toluene	Urine	*
	0.02 mg/l	Toluene	Blood	*

* - For sampling details, please see the source document.

Exposure guidelines**US - California OELs: Skin designation**

n-Hexane (CAS 110-54-3)

Can be absorbed through the skin.

Toluene (CAS 108-88-3)

Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Toluene (CAS 108-88-3)

Skin designation applies.

US ACGIH Threshold Limit Values: Skin designation

n-Hexane (CAS 110-54-3)

Can be absorbed through the skin.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection**Hand protection**

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	157.92 °F (69.96 °C) estimated
Flash point	24.7 °F (-4.0 °C) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	1.8 % estimated
Flammability limit - upper (%)	9.6 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	237.35 psig @70F estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	534.44 °F (279.13 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Specific gravity	0.365 estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.

Eye contact Causes serious eye irritation.

Ingestion Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Narcotic effects. May cause an allergic skin reaction.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
Acute		
Dermal		
LD50	Guinea pig	> 7426 mg/kg, 24 Hours > 9.4 ml/kg, 24 Hours
	Rabbit	> 7426 mg/kg, 24 Hours > 9.4 ml/kg, 24 Hours
Inhalation		
LC50	Rat	55700 ppm, 3 Hours 132 mg/l, 3 Hours 50.1 mg/l
Oral		
LD50	Rat	5800 mg/kg 2.2 ml/kg
Cyclohexane (CAS 110-82-7)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
LC50	Rat	> 32880 mg/m ³ , 4 Hours > 5540 ppm, 4 Hours
Oral		
LD50	Rabbit	> 5000 mg/kg
	Rat	> 5000 mg/kg
Isopropyl Alcohol (CAS 67-63-0)		
Acute		
Dermal		
LD50	Rabbit	16.4 ml/kg, 24 Hours
Inhalation		
LC50	Rat	> 10000 ppm, 6 Hours
Oral		
LD50	Rat	5.84 g/kg
Methyl Ethyl Ketoxime (CAS 96-29-7)		
Acute		
Dermal		
LD50	Rabbit	> 1000 mg/kg, 24 Hours 0.2 - 2 ml/kg, 24 Hours
Inhalation		
LC50	Rat	> 10.5 mg/l, 8 Hours > 4.83 mg/l, 4 Hours

Components	Species	Test Results
Oral LD50	Rat	> 900 mg/kg
n-Heptane (CAS 142-82-5)		
Acute		
Dermal LD50	Rabbit	> 2000 mg/kg, 24 Hours
Inhalation LC50	Rat	> 29.29 mg/l, 4 Hours
Oral LD50	Rat	> 5000 mg/kg
n-Hexane (CAS 110-54-3)		
Acute		
Dermal LD50	Rabbit	> 2000 mg/kg, 4 Hours > 5 ml/kg, 4 Hours
Inhalation LC50	Rat	> 5000 ppm, 24 Hours > 31.86 mg/l 73860 ppm, 4 Hours
Oral LD50	Rat	24 ml/kg 24 g/kg
	Wistar rat	49 g/kg
Solvent Naphtha (Petroleum), Light Aliphatic (CAS 64742-89-8)		
Acute		
Dermal LD50	Rabbit	> 1900 mg/kg, 24 Hours
Inhalation LC50	Rat	> 5000 mg/m3, 4 Hours > 4980 mg/m3 > 4980 mg/m3, 4 Hours > 4.96 mg/l, 4 Hours
Oral LD50	Rat	4820 mg/kg
Solvent Naphtha (Petroleum), Light Aromatic (CAS 64742-95-6)		
Acute		
Dermal LD50	Rabbit	> 1900 mg/kg, 24 Hours
Inhalation LC50	Rat	> 5000 mg/m3, 4 Hours > 4980 mg/m3 > 4980 mg/m3, 4 Hours > 4.96 mg/l, 4 Hours
Oral LD50	Rat	4820 mg/kg
Toluene (CAS 108-88-3)		
Acute		
Dermal LD50	Rabbit	> 5000 mg/kg, 24 Hours

Components	Species	Test Results
Inhalation		
LC50	Mouse	6405 - 7436 ppm, 6 Hours 5320 ppm, 8 Hours
	Rat	5879 - 6281 ppm, 6 Hours 25.7 mg/l, 4 Hours
Oral		
LD50	Rat	> 5000 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	May cause genetic defects.
Carcinogenicity	Suspected of causing cancer.
IARC Monographs. Overall Evaluation of Carcinogenicity	
Magnesium Silicate (CAS 14807-96-6)	2B Possibly carcinogenic to humans. 3 Not classifiable as to carcinogenicity to humans.
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not regulated.	
US. National Toxicology Program (NTP) Report on Carcinogens	
Not listed.	
Reproductive toxicity	Suspected of damaging fertility or the unborn child.
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	May be fatal if swallowed and enters airways.
Chronic effects	May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Components	Species	Test Results
Ecotoxicity Toxic to aquatic life with long lasting effects.		
Acetone (CAS 67-64-1)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 21.6 - 23.9 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 4740 - 6330 mg/l, 96 hours
Cyclohexane (CAS 110-82-7)		
Aquatic		
Fish	LC50	Fathead minnow (Pimephales promelas) 23.03 - 42.07 mg/l, 96 hours
Isopropyl Alcohol (CAS 67-63-0)		
Aquatic		
Algae	IC50	Algae 1000.0001 mg/L, 72 Hours
Crustacea	EC50	Daphnia 13299 mg/L, 48 Hours
Fish	LC50	Bluegill (Lepomis macrochirus) > 1400 mg/l, 96 hours

Components	Species		Test Results
Methyl Ethyl Ketoxime (CAS 96-29-7)			
Aquatic			
Algae	IC50	Algae	83 mg/L, 72 Hours
Crustacea	EC50	Daphnia	750 mg/L, 48 Hours
Fish	LC50	Fathead minnow (Pimephales promelas)	777 - 914 mg/l, 96 hours
n-Heptane (CAS 142-82-5)			
Aquatic			
Fish	LC50	Mozambique tilapia (Tilapia mossambica)	375 mg/l, 96 hours
n-Hexane (CAS 110-54-3)			
Aquatic			
Fish	LC50	Fathead minnow (Pimephales promelas)	2.101 - 2.981 mg/l, 96 hours
Solvent Naphtha (Petroleum), Light Aromatic (CAS 64742-95-6)			
Aquatic			
Crustacea	EC50	Daphnia	6.14 mg/L, 48 Hours
Toluene (CAS 108-88-3)			
Aquatic			
Algae	IC50	Algae	433.0001 mg/L, 72 Hours
Crustacea	EC50	Daphnia	7.645 mg/L, 48 Hours
		Water flea (Daphnia magna)	5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Coho salmon, silver salmon (Oncorhynchus kisutch)	8.11 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

Acetone	-0.24
Cyclohexane	3.44
Isopropyl Alcohol	0.05
n-Heptane	4.66
n-Hexane	3.9
Toluene	2.73

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number UN1993

UN proper shipping name Flammable liquids, n.o.s. (Acetone RQ = 13161 LBS, Heptane, branched, cyclic and linear)
Transport hazard class(es)
Class 3
Subsidiary risk -
Label(s) 3
Packing group II
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions IB2, T7, TP1, TP8, TP28
Packaging exceptions 150
Packaging non bulk 202
Packaging bulk 242

IATA

UN number UN1993
UN proper shipping name Flammable liquid, n.o.s. (Acetone, Heptane, branched, cyclic and linear)
Transport hazard class(es)
Class 3
Subsidiary risk -
Packing group II
Environmental hazards Yes
ERG Code 3H
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft Allowed with restrictions.
Cargo aircraft only Allowed with restrictions.

IMDG

UN number UN1993
UN proper shipping name FLAMMABLE LIQUID, N.O.S. (Acetone, Heptane, branched, cyclic and linear)
Transport hazard class(es)
Class 3
Subsidiary risk -
Packing group II
Environmental hazards
Marine pollutant Yes
EmS F-E, S-E
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

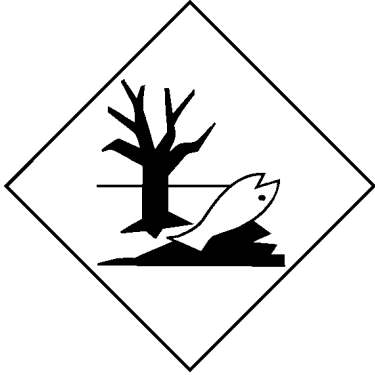
DOT



IATA; IMDG



Marine pollutant



General information

IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1)	Listed.
Cyclohexane (CAS 110-82-7)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
Toluene (CAS 108-88-3)	Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes
	Delayed Hazard - Yes
	Fire Hazard - Yes
	Pressure Hazard - No
	Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Cyclohexane	110-82-7	2.5 - 10
Toluene	108-88-3	2.5 - 10
n-Hexane	110-54-3	0.1 - 1

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

n-Hexane (CAS 110-54-3)
Toluene (CAS 108-88-3)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Acetone (CAS 67-64-1)	6532
Toluene (CAS 108-88-3)	6594

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Acetone (CAS 67-64-1)	35 %WV
Toluene (CAS 108-88-3)	35 %WV

DEA Exempt Chemical Mixtures Code Number

Acetone (CAS 67-64-1)	6532
Toluene (CAS 108-88-3)	594

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Acetone (CAS 67-64-1)
Isopropyl Alcohol (CAS 67-63-0)
Magnesium Silicate (CAS 14807-96-6)
n-Hexane (CAS 110-54-3)
Solvent Naphtha (Petroleum), Light Aliphatic (CAS 64742-89-8)
Solvent Naphtha (Petroleum), Light Aromatic (CAS 64742-95-6)
Toluene (CAS 108-88-3)

US. Massachusetts RTK - Substance List

Acetone (CAS 67-64-1)
Cyclohexane (CAS 110-82-7)
Isopropyl Alcohol (CAS 67-63-0)
Magnesium Silicate (CAS 14807-96-6)
n-Heptane (CAS 142-82-5)
n-Hexane (CAS 110-54-3)
Toluene (CAS 108-88-3)

US. New Jersey Worker and Community Right-to-Know Act

Acetone (CAS 67-64-1)
Cyclohexane (CAS 110-82-7)
Isopropyl Alcohol (CAS 67-63-0)
Magnesium Silicate (CAS 14807-96-6)
n-Heptane (CAS 142-82-5)
n-Hexane (CAS 110-54-3)
Toluene (CAS 108-88-3)

US. Pennsylvania Worker and Community Right-to-Know Law

Acetone (CAS 67-64-1)
Cyclohexane (CAS 110-82-7)
Isopropyl Alcohol (CAS 67-63-0)
Magnesium Silicate (CAS 14807-96-6)
n-Heptane (CAS 142-82-5)
n-Hexane (CAS 110-54-3)
Toluene (CAS 108-88-3)

US. Rhode Island RTK

Acetone (CAS 67-64-1)
Cyclohexane (CAS 110-82-7)
Isopropyl Alcohol (CAS 67-63-0)
n-Hexane (CAS 110-54-3)
Toluene (CAS 108-88-3)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Ethylene Glycol (CAS 107-21-1)	Listed: June 19, 2015
Toluene (CAS 108-88-3)	Listed: January 1, 1991

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	07-09-2015
Revision date	10-24-2016
Version #	03
Disclaimer	We cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.
Revision information	First-aid measures: Ingestion First-aid measures: Inhalation Fire-fighting measures: Fire fighting equipment/instructions Accidental release measures: Methods and materials for containment and cleaning up Handling and storage: Precautions for safe handling Handling and storage: Conditions for safe storage, including any incompatibilities Exposure controls/personal protection: Respiratory protection Physical and chemical properties: Form Disposal considerations: Disposal instructions Disposal considerations: Contaminated packaging Transport information: General information