



SAFETY DATA SHEET

According to the Hazard Communication Standard, 29 CFR 1910.1200

SDS # : 083359

KILFROST AIRTOOL LUBE

Date of the previous version: 2015-10-13

Revision Date: 2016-05-06

Version 3

1. IDENTIFICATION

Product identifier

Product name KILFROST AIRTOOL LUBE

Other means of identification

Product Code(s) 083359

Number 7Z3

Substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Identified uses Antifreeze. Lubricant.

Uses advised against Do not use for any purpose other than the one for which it is intended

Details of the supplier of the safety data sheet

Supplier Address TOTAL Specialties USA Inc
1201 Louisiana Street, Suite 1800
Houston, TX 77002
Phone: +1 800 323 3198

Contact Point Technical/ HSEQ

E-mail Address USRMLIN-info@total.com

Emergency telephone number

Company Phone Number

Emergency telephone

+1 (908) 862-9300

+1 866 928 0789 (24h/24, 7d/7)

+1 215 207 0061 (24h/24, 7d/7)

2. HAZARDS IDENTIFICATION

Classification

Acute Toxicity - Oral - Category 4

Specific target organ systemic toxicity (repeated exposure) - Category 2

Label elements

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**WARNING**

Harmful if swallowed
May cause damage to organs through prolonged or repeated exposure

Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product

Precautionary Statements - Response

Get medical advice/attention if you feel unwell

Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

Precautionary Statements - Disposal

Dispose of contents/ container to an approved waste disposal plant

Unknown Acute Toxicity

68.164% of the mixture consists of ingredient(s) of unknown toxicity

Hazards not otherwise classified (HNOC)

None known

Other information

Physical-Chemical Properties Contaminated surfaces will be extremely slippery.

Environmental properties Should not be released into the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Mixture**

Chemical Name	CAS-No	Weight %
Monoethyleneglycol	107-21-1	55-60
Benzene, mono-C10-13-alkyl derivatives, fractionation bottoms, heavy ends, sulfonated, sodium salts	148520-82-5	5-10
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5	3-5

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Benzenesulfonic acid, C10-14-alkyl derivatives, sodium salts	69669-44-9	1-5
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** The exact percentage (concentration) of composition has been withheld as a trade secret*

4. FIRST AID MEASURES

First aid measures for different exposure routes

General advice	Show this material safety data sheet to the doctor in attendance. If symptoms persist, call a physician. Do not breathe dust/fume/gas/mist/vapors/spray. IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.
Eye contact	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.
Skin contact	Consult a physician if necessary. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash off immediately with soap and plenty of water. Remove contaminated clothing and shoes. Wash off with soap and water. Wash contaminated clothing before reuse.
Inhalation	Move to fresh air. If not breathing, give artificial respiration. Consult a physician. Inhalation of high concentrations of vapor or aerosols may cause irritation of the upper respiratory tract.
Ingestion	If symptoms persist, call a physician. Rinse mouth. Do NOT induce vomiting. Drink plenty of water. If swallowed, do not induce vomiting - seek medical advice. Never give anything by mouth to an unconscious person.
Protection of First-aiders	Use personal protective equipment.

Most important symptoms/effects, acute and delayed

Skin contact	Causes mild skin irritation.
Eye contact	Not classified. Avoid contact with eyes. May cause eye irritation with susceptible persons.
Inhalation	Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion	Harmful if swallowed. May cause damage to organs through prolonged or repeated exposure. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Symptoms	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Itching. Difficulty breathing. Coughing and/ or wheezing.

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

Notes to physician	Treat symptomatically. May cause sensitization of susceptible persons.
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5. FIRE-FIGHTING MEASURES

<u>Suitable Extinguishing Media</u>	Foam. Carbon dioxide (CO ₂). ABC powder.
<u>Unsuitable Extinguishing Media</u>	Do not use a solid water stream as it may scatter and spread fire.
<u>Special Hazard</u>	Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.
<u>Explosion Data</u>	
<u>Sensitivity to Mechanical Impact</u>	None.
<u>Sensitivity to Static Discharge</u>	None.
<u>Protective Equipment and Precautions for Firefighters</u>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate non-essential personnel.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

General Information Avoid contact with skin, eyes and clothing. Use personal protective equipment. Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery. Evacuate personnel to safe areas. Ensure adequate ventilation.

Other information See Section 12 for additional information.

Environmental precautions

General Information Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. Try to prevent the material from entering drains or water courses. See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up

Methods for cleaning up Dam up. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Use mechanical means such as pumps and absorbent materials.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Wear personal protective equipment. Prevent the formation of vapors, mists and aerosols. When using, do not eat, drink or smoke. For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapors or spray mist.

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Hygiene measures

Regular cleaning of equipment, work area and clothing is recommended. Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. Use personal protective equipment as required. Wash hands before breaks and at the end of workday. Avoid breathing vapors, mist or gas. Avoid prolonged and repeated contact with the skin, especially with used or waste product. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets. When using, do not eat, drink or smoke. Wash hands with water as a precaution. Do not wash off with: Fuel. Solvent. Abrasive. Avoid extended and repeated contact with the skin as this may cause skin conditions, which may also be aggravated by minor injuries or by contact with soiled clothing.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep away from direct sunlight.

Materials to Avoid Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits Mineral oil mist:
USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (highly refined).

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Monoethyleneglycol 107-21-1	Ceiling 100 mg/m ³	(vacated) Ceiling: 50 ppm (vacated) Ceiling: 125 mg/m ³	

Exposure controls

Engineering Measures Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Individual protection measures, such as personal protective equipment

General Information If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers. These recommendations apply to the product as supplied.

Eye/Face Protection If splashes are likely to occur, wear: Safety glasses with side-shields.

Skin and body protection Long sleeved clothing. Wear suitable protective clothing. Protective shoes or boots.

Hand Protection Protective gloves. Nitrile rubber. Neoprene gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the

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gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures

Regular cleaning of equipment, work area and clothing is recommended. Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. Use personal protective equipment as required. Wash hands before breaks and at the end of workday. Avoid breathing vapors, mist or gas. Avoid prolonged and repeated contact with the skin, especially with used or waste product. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets. When using, do not eat, drink or smoke. Wash hands with water as a precaution. Do not wash off with: Fuel. Solvent. Abrasive. Avoid extended and repeated contact with the skin as this may cause skin conditions, which may also be aggravated by minor injuries or by contact with soiled clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Color	amber
Physical State @20°C	liquid
Odor	Slight
Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH		No information available	
pH (as aqueous solution)	8.2	solution (50 %)	
Melting point/range		No information available	
Boiling point/boiling range		Not applicable	
Flash point		Not applicable	
Evaporation rate		No information available	
Flammability Limits in Air		No information available	
upper	-	No information available	
Lower	-	No information available	
Vapor Pressure		No information available	
Vapor density		No information available	
Relative density	1.07	@ 15 °C	
Density	1071 kg/m ³	@ 15 °C	
Water solubility		Not applicable	
Solubility in other solvents		No information available	

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logPow		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Viscosity, kinematic	24.7 mm ² /s	@ 40 °C
Explosive properties	Not explosive	
Oxidizing Properties	Not applicable	
Possibility of hazardous reactions	Not applicable	
Other information		

Specific Gravity	1.07	@ 15 °C
Freezing Point		No information available

Pour point	-45.5 °C	ASTM D 97
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10. STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to Avoid	Heat, flames and sparks. Take precautionary measures against static discharges. Heat (temperatures above flash point), sparks, ignition points, flames, static electricity. Strong oxidizing agents.
Incompatible Materials	Strong oxidizing agents.
Hazardous Decomposition Products	Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principle Routes of Exposure	Inhalation, Ingestion, Eye contact, Skin contact.
Symptoms	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Itching. Difficulty breathing. Coughing and/ or wheezing.
Skin contact	Causes mild skin irritation.
Eye contact	Not classified. Avoid contact with eyes. May cause eye irritation with susceptible persons.
Inhalation	Not classified. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion	Harmful if swallowed. May cause damage to organs through prolonged or repeated exposure. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Acute toxicity - Product Information

Product Information	Product does not present an acute toxicity hazard based on known or supplied information.
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Oral	
ATEmix (oral)	719 mg/kg
Dermal	
ATEmix (dermal)	58331 mg/kg
Inhalation	
ATEmix (inhalation-dust/mist)	7.5 mg/l
ATEmix (inhalation-vapor)	94.7 mg/l

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Monoethyleneglycol 107-21-1	LD50 7712 mg/kg Oral (Rat)	LD50 > 3500 mg/kg Dermal (Mouse)	LC50(6h) >2.5 mg/l Inhalation (Rat)
Benzene, mono-C10-13-alkyl derivitives, fractionation bottoms, heavy ends, sulfonated, sodium salts 148520-82-5	404 mg/kg (Rat)		
Distillates (petroleum), hydrotreated heavy naphthenic 64742-52-5	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	LC50 (4h) 5.53 mg/l (Rat - Aerosol - OECD 403)

Sensitization Not classified as a sensitizer. Contains sensitizer(s).
Carcinogenicity This product is not classified carcinogenic.

Chemical Name	ACGIH	IARC	NTP	OSHA
Distillates (petroleum), hydrotreated heavy naphthenic 64742-52-5	-	-		-

Mutagenicity This product is not classified as mutagenic.
Reproductive toxicity This product does not present any known or suspected reproductive hazards.
STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure.
Aspiration Hazard Not classified.

12. ECOLOGICAL INFORMATION**Ecotoxicity****Acute aquatic toxicity - Product Information**

No experimental data available

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates	Toxicity to microorganisms
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Monoethyleneglycol 107-21-1	EC50(48h) >10000 mg/l	LC50 (95h) 72860 mg/l (Pimephales promelas) LC50(96h) 18500 mg/l (Rainbow trout) EC50(96h) 6500-13000 mg/l (Selenastrum capricornulum)	EC50(48h) >100 mg/l Daphnia magna (OECD 202)	
Distillates (petroleum), hydrotreated heavy naphthenic 64742-52-5		LC50 (96h) > 100 mg/l (Pimephales promelas - static - OECD 203)	EL50 (48h) > 10000 mg/l (Daphnia magna - static - OECD 202)	

Chronic aquatic toxicity - Product Information

No experimental data available

Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates	Toxicity to fish	Toxicity to microorganisms
Distillates (petroleum), hydrotreated heavy naphthenic 64742-52-5		NOEL (21d) 10 mg/l (Daphnia magna - semi static - OECD 211)		

Effects on terrestrial organisms No experimental data available .**Persistence and degradability****General Information** No information available.**Bioaccumulative potential****Product Information** No information available.**logPow** No information available**Component Information**

Chemical Name	log Pow
Monoethyleneglycol 107-21-1	-1.36

Mobility**Soil** No information available**Other adverse effects****General Information** No information available**13. DISPOSAL CONSIDERATIONS**

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Waste treatment**Waste Disposal Methods** Dispose of in accordance with local regulations.**Contaminated packaging** Dispose of in accordance with local regulations.

California Hazardous Waste Codes 221

14. TRANSPORT INFORMATION**DOT** Not regulated**TDG** Not regulated**MEX** Not regulated**ICAO/IATA** Not regulated**IMDG/IMO** Not regulated**ADR/RID** Not regulated**ADN** Not regulated**15. REGULATORY INFORMATION**

International Inventories All the substances contained in this product are listed or exempted from listing in the following inventories:
 U.S.A. (TSCA)
 Australia (AICS)
 Canada (DSL/NDSL)

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Monoethyleneglycol	107-21-1	55-65	1.0

SARA 311/312 Hazard Categories

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Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	no
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following HAPs:

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Monoethyleneglycol	107-21-1	55-60		Group I		

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Monoethyleneglycol	5000 lb	

U.S. State Regulations**California Proposition 65**

This product contains chemicals known to the State of California to cause cancer or reproductive toxicity

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois
Monoethyleneglycol 107-21-1	X	X	X	X
Distillates (petroleum), hydrotreated light naphthenic 64742-53-6	X			

16. OTHER INFORMATION

NFPA	Health Hazard 2	Flammability 0	Instability 0	Physical and chemical hazards -
HMIS	Health Hazard 2	Flammability 0	Physical Hazard 0	Personal protection X

NFPA (National Fire Protection Association)

HMIS (Hazardous Material Information System)

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Hazards are split into categories each with a 0 to 4 rating, 0 meaning no hazard and 4 meaning high hazard

Revision Date: 2016-05-06
Revision Note *** Indicates updated section

Abbreviations, acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

bw = body weight

bw/day = body weight/day

EC x = Effect Concentration associated with x% response

GLP = Good Laboratory Practice

IARC = International Agency for Research of Cancer

LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals

LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals

LL = Lethal Loading

NIOSH = National Institute of Occupational Safety and Health

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOEL = No Observed Effect Level

OECD = Organization for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material

Legend

Section 8

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH - National Institute for Occupational Safety and Health

TLV - Threshold Limit Values

PEL - Permissible Exposure Limits

IDHL - Immediately Dangerous to Life or Health concentrations

TWA - Time Weight Average

STEL - Short Term Exposure Limits

S* - Skin notation

TSCA - Toxic Substance Control Act

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of the Safety Data Sheet

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