SAFETY DATA SHEET

1. Identification

Identification
Product name: **POWERZOL™ 9049**

Additional identification
Chemical name: Mixture

Recommended use and restriction on use
Recommended use: Aftermarket Diesel
Restrictions on use: None identified.

Details of the supplier of the safety data sheet
Supplier

Company Name:	LUBRIZOL LIMITED
Address:	THE KNOWLE, NETHER LANE HAZELWOOD, DERBYSHIRE, DE56 4AN GB
Telephone:	(44) 01332-842211

Emergency telephone number:
FOR TRANSPORT EMERGENCY CALL CHEMTREC (+1) 703 527 3887

2. Hazard(s) identification

Hazard Classification
Physical Hazards

Flammable liquids	Category 4

Health Hazards

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A

Label Elements:

Hazard Symbol:

Signal Word: Warning

Hazard Statement:
Combustible liquid.
Causes skin irritation.
Causes serious eye irritation.

Precautionary Statements:

Prevention:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Response:	IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing. Specific treatment (see supplemental first aid instructions on this label). 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. In case of fire: Use CO2, dry chemical or foam to extinguish. Water can be used to cool and protect exposed material.
Storage:	Store in a well-ventilated place. Keep cool.
Disposal:	Dispose of contents/ container to an approved facility in accordance with local, regional, national and international regulations.

Other hazards which do not result in GHS classification: None identified.

3. Composition/information on ingredients

Chemical name	CAS number	Percent by Weight
Petroleum naphtha	64742-47-8	20 – 30%
2-Ethylhexanol	104-76-7	10 – 20%
Mineral oil	64742-54-7	1 – 5%

4. First-aid measures

Ingestion:	Rinse mouth. Get medical attention if symptoms occur.
Inhalation:	Remove exposed person to fresh air if adverse effects are observed.
Skin Contact:	Take off contaminated clothing and wash before re-use. Wash skin thoroughly with soap and water. Wash with soap and water. If skin irritation occurs, get medical attention. Get medical attention if symptoms occur. Launder contaminated clothing before reuse.
Eye contact:	Rinse cautiously with water for several minutes. Flush thoroughly with water. If irritation occurs, get medical assistance. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

Symptoms:	See section 11.

Indication of immediate medical attention and special treatment needed

Treatment: Treat symptomatically.

5. Fire-fighting measures

General Fire Hazards: Move containers from fire area if you can do so without risk.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: CO_2, Dry chemical or Foam. Water can be used to cool and protect exposed material.

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 cause a flash fire or ignite explosively. Prevent buildup of vapors or gases to explosive concentrations. Vapors may travel considerable distance to a source of ignition and flash back. Water may cause splattering. Container may rupture on heating. A solid stream of water will spread the burning material. Material creates a special hazard because it floats on water. See section 10 for additional information.

Special protective equipment and precautions for fire-fighters

Special fire-fighting procedures: No data available.

Special protective equipment for fire-fighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. See Section 8 of the SDS for Personal Protective Equipment.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up: In case of leakage, eliminate all ignition sources. Dike far ahead of larger spill for later recovery and disposal. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material. Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas.

7. Handling and storage

Precautions for safe handling: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid contact with skin. Avoid contact with eyes. Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Launder contaminated clothing before reuse.

Vapours are heavier than air and will tend to accumulate in low areas. Avoid use in confined areas without adequate ventilation. Areas of inadequate ventilation could contain concentrations high enough to cause eye irritation, headaches, respiratory discomfort or nausea. Carefully evaluate processes using this product at elevated temperatures to ensure safe operating conditions. Electrostatic buildup may occur when pouring or transferring this product from its container. The spark produced may be sufficient to ignite vapors of flammable liquids. Always transfer product by means which avoid static buildup. Avoid pouring product directly from its container into combustible or flammable solvent. Static ignition hazard can result from handling and use. Electrically bond and ground all containers and equipment before transfer or use of material. Do not breathe thermal decomposition products.

Maximum Handling Temperature: 50 °C 122 °F

Conditions for safe storage, including any incompatibilities: Store in containers made of same material as original container. Keep cool. Store in a well-ventilated place. Store away from incompatible materials. See section 10 for incompatible materials. Do not store near potential sources of ignition.

Maximum Storage Temperature: 45 °C 113 °F

8. Exposure controls/personal protection

Control Parameters:

Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
Petroleum naphtha - Non-aerosol. - as total hydrocarbon vapor	TWA	200 mg/m3	US. ACGIH Threshold Limit Values, as amended (02 2012)
Petroleum naphtha	REL	100 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2010)
Mineral oil - Inhalable fraction.	TWA	5 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2014)
Mineral oil - Mist.	REL	5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2016)
Mineral oil - Mist.	STEL	10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards, as amended (2016)
Mineral oil	IDLH	2,500 mg/m3	US. NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended (10 2017)
Mineral oil - Mist.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (01 2017)
Mineral oil - Mist.	TWA	5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000), as amended (1989)

Appropriate engineering controls: No special requirements under ordinary conditions of use and with adequate ventilation. Adequate ventilation should be provided so that exposure limits are not exceeded.

Individual protection measures, such as personal protective equipment

General information:	Provide easy access to water supply and eye wash facilities. 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/face protection:	Wear tight-fitting goggles or face shield. Safety glasses. If potential for splash or mist exists, wear chemical goggles or faceshield.
Skin Protection	
Hand Protection:	Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water. Chemical resistant gloves
Other:	Wear apron or protective clothing in case of contact. Do not wear rings, watches or similar apparel that could entrap the material. Gloves, coveralls, apron, boots as necessary to minimize contact.
Respiratory Protection:	A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator. Use respirator with an 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. Use respirator with a combination organic vapor and dust/mist cartridge.
Hygiene measures:	Observe good industrial hygiene practices. Avoid contact with skin. Avoid contact with eyes. Wash contaminated clothing before reuse. When using do not smoke. Wash hands before breaks and immediately after handling the product.

9. Physical and chemical properties

Appearance	
Physical state:	liquid
Form:	liquid
Color:	Dark red
Odor:	Mild
Odor threshold:	No data available.
pH:	Not applicable
Freezing point:	No data available.
Boiling Point:	No data available.
Flash Point:	153 °F (67 °C) (Pensky-Martens Closed Cup)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper:	No data available.

Explosive limit - lower:	No data available.
Vapor pressure:	No data available.
Vapor density:	No data available.
Relative density:	0.872 - 0.912 60.1 °F (15.6 °C)
Solubility(ies)	
Solubility in water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	225 mm2/s (104 °F (40 °C)) 2600 mm2/s (0 °C (32 °F))
Other information	
Bulk density:	7.44 lb/gal 77 °F (25 °C)
Pour Point Temperature:	-54 °C

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Will not occur.
Conditions to avoid:	Heat, sparks, flames. Excessive heat. Contact with acids. Strong caustic agents.
Incompatible Materials:	Strong oxidizing agents. Oxidizing agents, Reactive metals, Sodium or Calcium Hypochlorite. Avoid heat or Dehydrating Agents. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Materials reactive with hydroxyl compounds. Strong acids. Lead and lead alloys
Hazardous Decomposition Products:	Thermal decomposition or combustion may generate smoke, carbon monoxide, carbon dioxide, and other products of incomplete combustion.

11. Toxicological information

Information on likely routes of exposure

Inhalation:	No data available.
Ingestion:	No data available.
Skin Contact:	Causes skin irritation.
Eye contact:	Causes serious eye irritation.

Information on toxicological effects

Acute toxicity

Oral

Product:	ATEmix > 10,000 mg/kg. Ingestion can cause central nervous system effects such as headache, dizziness, drowsiness, and generalized weakness. Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in severe injury to the lungs and death.

Dermal

Product:	Not classified for acute toxicity based on available data.

Inhalation

Product:	Dust and mist: ATEmix (, 4 h): 10 - 20 mg/l.High concentrations may cause headaches, dizziness, nausea, behavioral changes, weakness, drowsiness and stupor.

Skin Corrosion/Irritation:

Product:	Remarks: Causes skin irritation. 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.

Serious Eye Damage/Eye Irritation:

Product:	Remarks: Causes serious eye irritation.

Respiratory sensitization:

No data available

Skin sensitization:

Petroleum naphtha	Classification: Not a skin sensitizer. (Literature) Not a skin sensitizer.
2-Ethylhexanol	Classification: Not a skin sensitizer. (Literature)
Mineral oil	Classification: Not a skin sensitizer. (Read across)

Specific Target Organ Toxicity - Single Exposure:

Product:	
Petroleum naphtha	If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract similar to that observed with mineral oil. Under good industrial hygiene practices where all exposure limits are observed respiratory irritation should not be a problem.
2-Ethylhexanol	Respiratory tract irritation.

Aspiration Hazard:

Petroleum naphtha	Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in severe injury to the lungs and death.

Mineral oil	Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in severe injury to the lungs and death.

Other effects:

Product:	If material is misted or if vapors are generated from heating, exposure may cause irritation of mucous membranes and the upper respiratory tract.

Chronic Effects

Carcinogenicity:

Product:	This product contains mineral oils which are severely refined and not considered carcinogenic. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.
Petroleum naphtha	Not classified
Mineral oil	All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test. This product contains mineral oils which are severely refined and not considered carcinogenic.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:

No carcinogenic components identified

Germ Cell Mutagenicity:

2-Ethylhexanol	This material has not exhibited mutagenic or genotoxic potential in laboratory tests.

Reproductive toxicity:

Petroleum naphtha	Not classified
2-Ethylhexanol	No evidence of adverse effects were found in a developmental toxicity study of 2-ethylhexanol in rats. Doses up to 3 ml/kg applied to the skin during the most critical part of the gestation period produced evidence of toxicity to mothers, but no evidence of injury in the developing offspring. In a previous study, birth defects were observed by oral administration, an unlikely route of exposure in the workplace.

Specific Target Organ Toxicity - Repeated Exposure:

2-Ethylhexanol	Repeated overexposure may result in liver and kidney damage. A 14-day dermal toxicity study of 2-ethylhexanol in rats showed blood effects, decreased spleen weight and decreased triglycerides. Unknown: Target Organ(s): Blood, Liver, Spleen., Kidney

12. Ecological information

Ecotoxicity

Fish

Petroleum naphtha	LL 50 (Oncorhynchus mykiss, 96 h): > 1,000 mg/l
2-Ethylhexanol	LC 50 (Fathead Minnow, 4 d): 28.2 mg/l LC 50 (Golden Orfe, 4 d): 17.1 mg/l
Mineral oil	LC 50 (Fathead Minnow, 96 h): > 100 mg/l

Aquatic Invertebrates

Petroleum naphtha	EC 50 (Water Flea (Daphnia Magna), 48 h): > 1,000 mg/l
2-Ethylhexanol	EC 50 (Water flea (Daphnia magna), 2 d): 39 mg/l
Mineral oil	EC 50 (Water flea (Daphnia magna), 48 h): > 10,000 mg/l EC 50 (Water flea (Daphnia magna), 21 d): > 10 mg/l NOEC (Water flea (Daphnia magna), 21 d): 10 mg/l

Toxicity to Aquatic Plants

Petroleum naphtha	EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): > 1,000 mg/l
2-Ethylhexanol	EC 50 (Green algae (Scenedesmus quadricauda), 3 d): 16.6 mg/l
Mineral oil	EC 50 (Algae (Pseudokirchneriella subcapitata), 72 h): > 100 mg/l NOEC (Algae (Pseudokirchneriella subcapitata), 72 h): >= 100 mg/l

Toxicity to soil dwelling organisms

No data available

Sediment Toxicity

No data available

Toxicity to Terrestrial Plants

No data available

Toxicity to Above-Ground Organisms

No data available

Toxicity to microorganisms

2-Ethylhexanol	EC 50 (Pseudomonas putida, 0.1 d): 540 mg/l EC 50 (Sludge, 0.5 d): > 100 mg/l

Persistence and Degradability

Biodegradation

Petroleum naphtha	OECD TG 301 F, 80 %, 28 d, Readily biodegradable
2-Ethylhexanol	OECD TG 302 B, 95 %, 5 d, Readily biodegradable OECD TG 301 C, 100 %, 14 d, Readily biodegradable
Mineral oil	OECD TG 301 F, 31 %, 28 d, Not readily degradable.

Bioaccumulative potential

Bioconcentration Factor (BCF)

2-Ethylhexanol	Bioconcentration Factor (BCF): 25.35 (calculated)

Partition Coefficient n-octanol / water (log Kow)

2-Ethylhexanol	Log Kow: 2.9 (Measured)

Mobility:

2-Ethylhexanol	soil - 1.42

Other adverse effects

No data available

13. Disposal considerations

Disposal instructions: Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Dispose of packaging or containers in accordance with local, regional, national and international regulations. Empty container contains product residue which may exhibit hazards of product.

Contaminated Packaging: Container packaging may exhibit hazards.

14. Transport information

DOT

UN number or ID number:	NA 1993
UN Proper Shipping Name:	Combustible liquid, n.o.s.(Petroleum naphtha, 2-Ethylhexanol)
Transport Hazard Class(es)	
Class:	CBL
Label(s):	NONE
Packing Group:	III
Environmental Hazards	Not regulated.
Special precautions for user:	None established

IMDG

Not regulated.

IATA

Not regulated.

Transport in bulk according to Annex II of MARPOL and the IBC Code

None known.

The DOT shipping information in this section is based on a bulk container. Please review the accompanying shipping papers for the correct shipping descriptions based the size of the package. Shipping descriptions may vary based on mode of transport, quantities, temperature of the material, package size, and/or origin and destination. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material. During transportation, steps must be taken to prevent load shifting or materials falling, and all relating legal statutes should be obeyed. Review classification requirements before shipping materials at elevated temperatures.

15. Regulatory information

US Federal Regulations

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

None present or none present in regulated quantities.

TSCA Section 5(a)2 Significant New Use Rule (SNURs) (40CFR 721, Subpt E)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4)

None present or none present in regulated quantities.

Superfund amendments and reauthorization act of 1986 (SARA)

SARA 311 Classifications

Flammable (gases, aerosols, liquids, or solids)
Skin Corrosion or Irritation
Serious eye damage or eye irritation

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65

This product can expose you to chemicals including: Ethylene oxide (15.00PPB) which is [are] known to the State of California to cause cancer and birth defects or other reproductive harm.

This product can expose you to chemicals including: Methanol (2.00PPB) which is [are] known to the State of California to cause birth defects or other reproductive harm.

This product can expose you to chemicals including: Propylene oxide (150.00PPM) Furan (15.00PPB) which is [are] known to the State of California to cause cancer.

Inventory Status

Australia (AIIC)

All components are in compliance with chemical notification requirements in Australia.

Canada (DSL/NDSL)

All substances contained in this product are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List (DSL) or are exempt.

China (IECSC)

This product contains a substance or polymer that has been notified and is restricted to import by the notifier.

European Union (REACh)

To obtain information on the REACH compliance status of this product, please e-mail REACH@SDSInquiries.com.

Great Britain (UK REACH)
To obtain information on the UK REACH compliance status of this product, please e-mail REACH@SDSInquiries.com.

Japan (ENCS)
This product contains a substance or polymer that has been notified and is restricted to import by specific legal entities.

Korea (ECL)
All components are in compliance in Korea.

New Zealand (NZIoC)
All components are in compliance with chemical notification requirements in New Zealand.

Philippines (PICCS)
All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969).

Switzerland (SWISS)
All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.

Taiwan (TCSCA)
All components of this product are listed on the Taiwan inventory.

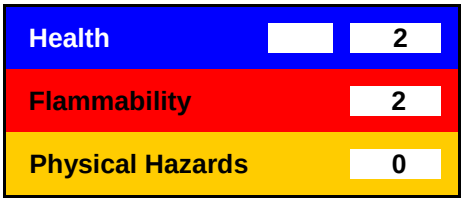
Turkey (KKDIK)
To obtain information on the KKDIK compliance status of this product, please e-mail REACH@SDSInquiries.com.

United States (TSCA)
All substances contained in this product are listed on the TSCA inventory or are exempt.

The information that was used to confirm the compliance status of this product may deviate from the chemical information shown in Section 3.

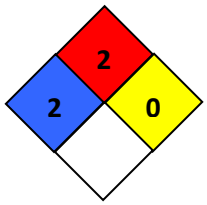
16.Other information, including date of preparation or last revision

HMIS Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible; *Chronic health effect

NFPA Hazard ID



Flammability
Health
Reactivity
Special hazard.

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

Issue Date:	04/26/2023
Version #:	8.0
Source of information:	Internal company data and other publically available resources.
Further Information:	Contact supplier (see Section 1)
	Revision(s) are noted by the double bar in the margin and the light gray box.
Disclaimer:	As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user.