SAFETY DATA SHEET

1. Identification

Identification

Product name: **POWERZOL(TM) 9543**

Additional identification

Chemical name: Mixture

Recommended use and restriction on use

Recommended use: Not determined.
Restrictions on use: Not determined.

Details of the supplier of the safety data sheet

Supplier

Company Name: THE LUBRIZOL CORPORATION
Address: 29400 LAKELAND BOULEVARD
WICKLIFFE, OH 44092-2298
US
Telephone: (440)943-1200

Emergency telephone number:
FOR TRANSPORT EMERGENCY CALL CHEMTREC (+1)703 527 3887, OR WITHIN USA 800 424 9300 (LUBRIZOL)

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable liquids	Category 4

Health Hazards

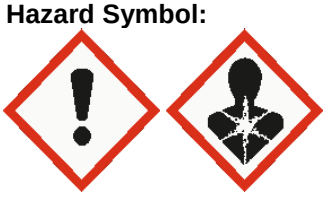
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2A
Carcinogenicity	Category 2
Aspiration Hazard	Category 1

Unknown toxicity

Acute toxicity, oral	0.0 %
Acute toxicity, dermal	0.0 %
Acute toxicity, inhalation, vapor	90.2 %
Acute toxicity, inhalation, dust or mist	52.5 %

Label Elements:

Hazard Symbol:



Signal Word: Danger

Hazard Statement: Combustible liquid.
Causes skin irritation.
Causes serious eye irritation.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.

Precautionary Statement:

Prevention: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid release to the environment.

Response: 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. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. If exposed or concerned: Get medical advice/attention. Specific treatment (see this label). Take off contaminated clothing. In case of fire: Use CO2, dry chemical or foam for extinction. Water can be used to cool and protect exposed material. Collect spillage.

Storage: Store in well-ventilated place. Keep cool. Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

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

3. Composition/information on ingredients

Chemical name	CAS number	Percent by Weight
Polyether amine	Confidential	30 - 40%
Petroleum naphtha	64742-47-8	30 - 40%
Hydrotreated middle distillates	64742-46-7	10 - 20%
Hydrocarbyl amine	Confidential	5 - 10%
Petroleum naphtha	64742-94-5	1 - 5%
Substituted aliphatic amine	Confidential	1 - 5%
++ Naphthalene	91-20-3	0.1 - 0.5%

++ The listed components are subcomponents of the hazardous ingredients listed above.

Trade secret information: A specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

General information: IF exposed or concerned: Get medical advice/attention.

Ingestion: Do NOT induce vomiting. Aspiration of material due to vomiting can cause chemical pneumonitis which can be fatal. If vomiting occurs naturally, the casualty should lean forward to reduce the risk of aspiration. Rinse mouth. Immediately call a POISON CENTER/doctor/…

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. If skin irritation occurs, get medical attention. Launder contaminated clothing before reuse.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor/…

Most important symptoms/effects, acute and delayed

Symptoms: Symptoms may be delayed.

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: CO2, 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 firefighters

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.

Methods and material for containment and cleaning up: Eliminate all ignition sources if safe to do so. 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.

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

7. Handling and storage

Precautions for safe handling: Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not get in eyes. Avoid contact with skin. Observe good industrial hygiene practices. Provide adequate ventilation. Use personal protective equipment as required. Wash hands thoroughly after handling. Launder contaminated clothing before reuse. Avoid environmental contamination.

Maximum Handling Temperature: Not determined.

Conditions for safe storage, including any incompatibilities: 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: Not determined.

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 (02 2012)
Petroleum naphtha	REL	100 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Hydrotreated middle distillates - Inhalable fraction.	TWA	5 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
Hydrotreated middle distillates - Mist.	REL	5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Hydrotreated middle distillates - Mist.	STEL	10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
Hydrotreated middle distillates - Mist.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
++ Naphthalene	TWA	10 ppm	US. ACGIH Threshold Limit Values (02 2012)
++ Naphthalene	STEL	15 ppm 75 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
++ Naphthalene	REL	10 ppm 50 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
++ Naphthalene	PEL	10 ppm 50 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

Appropriate engineering controls: Material should be handled in enclosed vessels and equipment, in which case general (mechanical) room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air.

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.

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.

Other: Wear apron or protective clothing in case of contact. Do not wear rings, watches or similar apparel that could entrap the material.

Respiratory Protection: Use respirator with an organic vapor cartridge if 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. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator. Under normal use conditions, respirator is not usually required. Use appropriate respiratory protection if exposure to dust particles, mist or vapors is likely. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.

Hygiene measures: Observe good industrial hygiene practices. Do not get in eyes. Avoid contact with skin. 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:	Light yellow
Odor:	Slight amine
Odor threshold:	No data available.
pH:	No data available.
Freezing point:	No data available.
Boiling Point:	No data available.
Flash Point:	165 °F (74 °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:	0.865 - 0.905 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:	12.5 mm2/s (104 °F (40 °C)) 20 mm2/s (25 °C (77 °F))

Other information

Pour Point Temperature:	-17 °F (-27 °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. Do not expose to excessive heat, ignition sources, or oxidizing materials.
Incompatible Materials:	Strong acids. Strong oxidizing agents.
Hazardous Decomposition Products:	Ammonia. Propylamine, polyalkylglycols, and aliphatic alcohols may also be released. 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**:** Swallowing this material causes irritation of mouth, esophagus and stomach, with nausea, vomiting, diarrhea and abdominal pain. Swallowing material may cause irritation of the gastrointestinal lining, nausea, vomiting, diarrhea, and abdominal pain. Ingestion can cause central nervous system effects such as headache, dizziness, drowsiness, and generalized weakness.
Not classified for acute toxicity based on available data.

Dermal

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

Inhalation

Product**:** High concentrations may cause headaches, dizziness, nausea,

	behavioral changes, weakness, drowsiness and stupor. Repeated overexposure to petroleum naphtha can cause nervous system damage. High concentrations may cause headaches, dizziness, weakness, and nausea. ATEmix (, 4 h): >5 mg/l. Dusts, mists and fumes

Skin Corrosion/Irritation:

Product**:**	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. Remarks: Causes skin irritation.

Serious Eye Damage/Eye Irritation:

Product**:**	Remarks: Causes serious eye irritation.

Respiratory sensitization:

No data available

Skin sensitization:

Polyether amine	Classification: Not a skin sensitizer. (Read across) Not a skin sensitizer.
Petroleum naphtha	Classification: Not a skin sensitizer. (Literature)
Petroleum naphtha	Classification: Not a skin sensitizer. (Literature)

Specific Target Organ Toxicity - Single Exposure:

Polyether amine	Nose, throat and lung irritant.
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.
Hydrotreated middle distillates	May cause irritation to the mucous membranes and upper respiratory tract.
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.
Substituted aliphatic amine	Nose, throat and lung irritant.

Aspiration Hazard:

Product**:**	May be fatal if swallowed and enters airways.

Other effects:

Petroleum naphtha	Narcotic effect.
++ Naphthalene	Blood

Chronic Effects

Carcinogenicity:

Product**:**	Not available.

++ Naphthalene	A two-year National Toxicology Program (NTP) study found an increased incidence of nasal tumors in rats exposed to naphthalene by inhalation. In mice similarly exposed, increased incidences of alveolar/bronchiolar adenomas were observed.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

++ Naphthalene	Overall evaluation: 2B. Possibly carcinogenic to humans.

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

++ Naphthalene	Reasonably Anticipated to be a Human Carcinogen.

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

No carcinogenic components identified

Germ Cell Mutagenicity:

Hydrotreated middle distillates	The Ames Salmonella test for mutagenicity was negative for this product.
Petroleum naphtha	In vitro and in vivo genetic toxicity studies were negative.
++ Naphthalene	Naphthalene has caused mutagenic effects in in vitro studies with metabolic activation, however, in vivo studies do not show evidence of germ cell mutagenicity.

Reproductive toxicity:

No data available

Specific Target Organ Toxicity - Repeated Exposure:

Petroleum naphtha	Repeated overexposure to petroleum naphtha can cause nervous system damage.
++ Naphthalene	Repeated overexposure to naphthalene may cause cataracts. Repeated overexposure to naphthalene may cause destruction of red blood cells with anemia, fever, jaundice and kidney and liver damage.

12. Ecological information

Ecotoxicity

Fish

Petroleum naphtha	LC 50 (Rainbow Trout, 4 d): > 1,000 mg/l
Hydrocarbyl amine	LC 50 (Fathead Minnow, 4 d): 31 mg/l
Petroleum naphtha	LC 50 (Rainbow Trout, 4 Days): 2 mg/l

Aquatic Invertebrates

Petroleum naphtha	EC 50 (Water flea (Daphnia magna), 2 d): > 1,000 mg/l
Hydrocarbyl amine	EC 50 (Water flea (Daphnia magna), 2 d): > 100 mg/l
Petroleum naphtha	EC 50 (Water flea (Daphnia magna), 2 d): 3 mg/l

Toxicity to Aquatic Plants

Petroleum naphtha	EC 50 (Green algae (Selenastrum capricornutum), 3 d): > 1,000 mg/l LC 50 (Green algae (Selenastrum capricornutum), 3 d): > 1,000 mg/l

Hydrocarbyl amine	EC 50 (Green algae (Selenastrum capricornutum), 4 d): > 450 mg/l
Petroleum naphtha	EC 50 (Green algae (Selenastrum capricornutum), 4 d): 1.1 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

Hydrocarbyl amine	EC 50 (Sludge, 0.1 d): > 1,000 mg/l

Persistence and Degradability

Biodegradation

Petroleum naphtha	OECD TG 301 F, 69 %, 28 d, Readily biodegradable
Hydrotreated middle distillates	OECD TG 301 F, 60 %, 28 d, Readily biodegradable
Hydrocarbyl amine	Inherent Sludge, 20.7 %, 28 d, Not readily degradable.
Petroleum naphtha	OECD TG 301 F, 58 %, 28 d, Not readily degradable.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

No data available

Partition Coefficient n-octanol / water (log Kow)

No data available

Mobility:

No data available

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:	NA 1993
UN Proper Shipping Name:	Combustible liquid, n.o.s.(Polyether amine, Hydrotreated middle distillates)
Transport Hazard Class(es)	
Class:	CBL
Label(s):	–
Packing Group:	III
Marine Pollutant:	Yes
Special precautions for user:	None established
Reportable quantity	Naphthalene 100 lbs

IMDG

UN Number:	UN 3082
UN Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Polyether amine, Hydrotreated middle distillates)
Transport Hazard Class(es)	
Class:	9
Label(s):	9
EmS No.:	F-A, S-F
Packing Group:	III
Marine Pollutant:	Yes
Limited quantity	5.00L
Excepted quantity	E1
Special precautions for user:	None established

IATA

UN Number:	UN 3082
Proper Shipping Name:	Environmentally hazardous substance, liquid, n.o.s.(Polyether amine, Hydrotreated middle distillates)
Transport Hazard Class(es):	
Class:	9
Label(s):	9MI
Marine Pollutant:	Yes
Packing Group:	III
Limited quantity	30.00KG
Excepted quantity	E1
Environmental Hazards	Marine Pollutant
Special precautions for user:	None established
Other information	
Passenger and cargo aircraft:	Allowed.
Cargo aircraft only:	Allowed.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

None known.

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. 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.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Fire Hazard	Immediate (Acute) Health Hazards	Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance
SARA 304 Emergency Release Notification
SARA 311/312 Hazardous Chemical
SARA 313 (TRI Reporting)
This product may contain chemical(s) regulated under the Superfund Amendments and Reauthorization Act (SARA). For additional information please contact Lubrizol Customer Assistance: America(s): AmerLZAMCustomerAssistance@Lubrizol.com ; Europe: EMEAICustomerAssistance@Lubrizol.com ; Asia: APCustomerAssistance@Lubrizol.com

US State Regulations

US. California Proposition 65
This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

++ Naphthalene	0.243%
++ Benzene	24.00PPB

Inventory Status

Australia (AICS)
All components are in compliance with chemical notification requirements in Australia.

Canada (DSL/NDSL)
All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List.

China (IECSC)
All components of this product are listed on the Inventory of Existing Chemical Substances in China.

European Union (REACh)
To obtain information on the REACH compliance status of this product, please visit Lubrizol.com/REACH, or e-mail us at REACH_MSDS_INQUIRIES@Lubrizol.com

Japan (ENCS)
This product requires notification in Japan.

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.

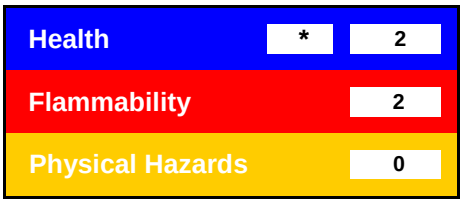
Taiwan (TCSCA)
All components of this product are listed on the Taiwan inventory.

United States (TSCA)
All components of this material are on the US TSCA Inventory.

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

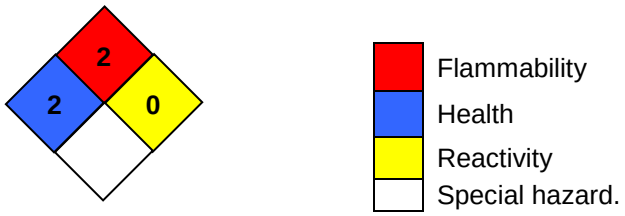
16.Other information, including date of preparation or last revision

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



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

Issue Date:	05/08/2015
Version #:	1.1
Source of information:	Internal company data and other publically available resources.
Further Information:	Contact supplier (see Section 1)
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