

Safety Data Sheet

PAFR-708

Friction Reducer – High and Ultrahigh TDS Brines
High Viscosity Friction Reducer – High TDS Brines

SECTION 1 – PRODUCT AND SUPPLIER IDENTIFICATION

Product: PAFR-708
Supplier: SingleTrack Solutions Corp.
Address: 4838 Richard Road SW, Calgary, Alberta, Canada T3E 6L1
Office: 1-587-353-4119

Product detail

Product Name: PAFR-708
Synonyms: N/A
CAS No.: 64742-47-8

SECTION 2 – HAZARD(S) IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015) and the US Hazard Communication Standard (HCS 2012).

Classification

Skin irritation - Category 2; Specific target organ toxicity (single exposure) - Category 3

Label Elements



Signal Word:

Warning

Hazard Statement(s):

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

Precautionary Statement(s):

Prevention:

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 Wash hands and skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves. Response:

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P302 + P352 IF ON SKIN: Wash with plenty of water.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312 Call a POISON CENTER or doctor if you feel unwell.

P332 + P313 If skin irritation occurs: Get medical advice or attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal:

P501 Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

This product contains crystalline silica which the International Agency for Research on Cancer (IARC) has listed as causing cancer in humans. Due to the viscosity, this product does not present an inhalation/carcinogenic hazard.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

| Chemical Name | CAS No. | % | Other Identifiers | Other Names |
|---|------------|----------|-------------------|-----------------------------|
| Distillates (petroleum), hydrotreated light | 64742-47-8 | 10 - 30* | Kerosene | Distillate fuel oils, light |

Notes

Concentrations are expressed in % weight/weight.

*The actual concentration or concentration range is withheld as a trade secret.

SECTION 4 – FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air. Keep at rest in a position comfortable for breathing. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Center or doctor. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

Immediately wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 15-20 minutes. Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). If skin irritation occurs, get medical advice or attention. Clean clothing, shoes, and leather goods.

Eye Contact

Quickly and gently blot or brush chemical off the face. Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. If eye irritation persists, get medical advice or attention.

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Ingestion

Rinse mouth with water. Never give anything by mouth if person is rapidly losing consciousness or is unconscious or convulsing. Do not induce vomiting. If vomiting occurs, have victim lean forward to reduce the risk of aspiration. Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If on skin

may cause moderate to severe irritation.

If inhaled:

symptoms may include headache, nausea, dizziness, drowsiness, and confusion.

Immediate Medical Attention and Special Treatment

Target Organs

Skin, nervous system

Special Instructions

None known.

Medical Conditions Aggravated by Exposure

None known.

SECTION 5 – FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Use extinguishing agent suitable for surrounding fire. Water, Carbon Dioxide, Foam, Dry chemical.

Unsuitable Extinguishing Media

Do not use direct streams of large volumes of water as this may spread the fire.

Specific Hazards Arising from the Product

Sealed systems of product may over pressurize when heated and rupture or explode. In a fire, the following hazardous materials may be generated: Carbon oxides.

Special Protective Equipment and Precautions for Fire-fighters

No special precautions are necessary. Knock down vapors or gases with water fog or fine water spray. Use water spray to cool containers/tanks. Dike and recover contaminated water for appropriate disposal. When fighting chemical fires, emergency responders should wear NIOSH approved self-contained breathing apparatus and appropriate protective clothing.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

See Section 8 for appropriate personal protective equipment. Ensure adequate ventilation in area. Keep out unnecessary and unprotected personnel. Eliminate all ignition sources. Use grounded, explosion-proof equipment.

Environmental Precautions

Prevent product from entering drains, soil, ditches, sewers, waterways and/or groundwater.

Methods and Materials for Containment and Cleaning Up

Eliminate all ignition sources. Stop or reduce leak if safe to do so.

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Small spills or leaks

Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

Large spills or leaks

Dike spilled product to prevent runoff. Contain and soak up spill with absorbent that does not react with spilled product. Do NOT use combustible materials such as sawdust. Remove or recover liquid using pumps or vacuum equipment. Place used absorbent into suitable, covered, labelled containers for disposal. Clean up residual contamination with water and place in appropriate containers for disposal. Dispose of in accordance with local or federal regulations.

SECTION 7 – HANDLING AND STORAGE

Precautions for Safe Handling

Avoid breathing in this product. Do not get in eyes, on skin or on clothing. Do not ingest product. Wear personal protective equipment to avoid direct contact with this chemical. See Section 8 for appropriate Personal Protective Equipment (PPE). Only use where there is adequate ventilation. Avoid generating vapors or mists. Keep away from excessive heat, oxidizing agents, and ignition sources. Remove and wash contaminated clothing before re-use. Do not eat, drink, or smoke in areas where product is handled. Employees should wash hands after working with product and before going on breaks outside of the work area.

Conditions for Safe Storage

Store in an area that is: cool, dry, well-ventilated, out of direct sunlight. Separate from incompatible materials. Keep containers tightly closed when not in use. Storage containers should be in a contained area to control any spills or leaks. No smoking around storage area. Store locked up.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

| Chemical Name | ACGIH® TLV® | | Alberta | | SASK | |
|---|-------------------|-----------------|---------|-----------------|---------|-----------------|
| | TWA | STEL [C] | OEL | STEL | OEL | STEL |
| Distillates (petroleum), hydrotreated light | 5 mg/m3 (I) A4 | Not established | 5 mg/m3 | Not established | 5 mg/m3 | Not established |

ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value.

TWA = Time-Weighted Average.

STEL = Short-term Exposure Limit.

C = Ceiling limit.

OEL = Occupational Exposure Limit

OEL values are for Oil Mist. There is no established TLV or OEL's for petroleum distillates.

I = Inhalable particulate matter.

A4 = Not classifiable as a human carcinogen.

Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control the amount in the air. An

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eyewash and safety shower should be within acceptable distance to the work area. While handling the product, do not eat or drink, wash hands before breaks and at the end of workday.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

Skin Protection

Wear gloves with appropriate chemical resistance, see manufacturers specifications for suitability. If a splashing hazard exists wear chemical protective clothing e.g., gloves that extend up arms, aprons, boots.

Respiratory Protection

If conditions exist above the OEL wear a NIOSH approved air-purifying respirator with an organic vapor cartridge.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

| | |
|--|--|
| Appearance | Amber - Yellow viscous liquid |
| Odour | Gasoline-like |
| Odour Threshold | Not available |
| pH | Not available |
| Melting Point/Freezing Point | Not available (melting); Not available (freezing) |
| Boiling point/Initial boiling point | > 35°C (95°F) |
| Boiling Range | Not available |
| Flash Point | Not applicable |
| Evaporation Rate | Not available |
| Flammability (solid, gas) | Not applicable (liquid) |
| Upper/Lower Flammability or Explosive Limit | Not available (upper); Not available (lower) |
| Vapour Pressure | Not available |
| Vapour Density (air = 1) | Not available |
| Relative Density (water = 1) | 1.10 at 20°C |
| Solubility | Soluble in water; Insoluble in Oil |
| Partition Coefficient, n- Octanol/Water (Log Kow) | Not available |
| Auto-ignition Temperature | Not available |
| Decomposition Temperature | Not available |
| Viscosity | Not available (kinematic); Not available (dynamic) |
| Other Information | |
| Physical State | Liquid |

SECTION 10 – STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Open flames, sparks, static discharge, heat, and other ignition sources.

Incompatible Materials

Strong oxidizing agents (e.g., perchloric acid).

Hazardous Decomposition Products

Oxides of carbon.

SECTION 11 – TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation; skin contact; ingestion; eye contact.

Acute Toxicity

| Chemical Name | LC50 | LD50 (oral) | LD50 (dermal) |
|---|---------------|--------------------|-----------------------|
| Distillates (petroleum), hydrotreated light | Not available | > 5000 mg/kg (rat) | > 2000 mg/kg (rabbit) |

ATE (Inhalation)

No information was located.

ATE (Oral)

Oral ATEmix = >5000 mg/kg

0 % of the mixture consists of an ingredient or ingredients of unknown acute toxicity (oral)

ATE (Dermal)

Dermal ATEmix = >2000 mg/kg

0 % of the mixture consists of an ingredient or ingredients of unknown acute toxicity (dermal)

Skin Corrosion/Irritation

May cause moderate or severe irritation based on information for closely related materials. Symptoms include pain, redness, and swelling.

Serious Eye Damage/Irritation

May cause very mild irritation based on information for closely related chemicals. Symptoms include slight redness and pain.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May cause depression of the central nervous system. Symptoms may include headache, nausea, dizziness, drowsiness, and confusion.

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Skin Absorption

No information was located.

Ingestion

May cause irritation of the gastrointestinal tract.

Aspiration Hazard

No information was located.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No Information was located.

Respiratory and/or Skin Sensitization

Not a respiratory sensitizer. Not a skin sensitizer

Carcinogenicity

| Chemical Name | IARC | ACGIH® | NTP | OSHA |
|---|---------|--------|------------|------------|
| Distillates (petroleum), hydrotreated light | Group 3 | A3 | Not Listed | Not Listed |

Not known to cause cancer.

Key to Abbreviations

IARC = International Agency for Research on Cancer.

Group 3 = Not classifiable as to its carcinogenicity to humans.

ACGIH® = American Conference of Governmental Industrial Hygienists.

A3 = Animal carcinogen.

NTP = National Toxicology Program.

OSHA = US Occupational Safety and Health Administration.

Reproductive Toxicity

Development of Offspring

No information was located.

Sexual Function and Fertility

No information was located.

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

No information was located.

Interactive Effects

No information was located.

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SECTION 12 – ECOLOGICAL INFORMATION

Do not allow product to contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers.

Ecotoxicity

No information was located.

Acute Aquatic Toxicity

| Chemical Name | LC50 Fish | EC50 Crustacea | ErC50 Aquatic Plants | ErC50 Algae |
|---|---|----------------|----------------------|---------------|
| Distillates (petroleum), hydrotreated light | 2.9 mg/L (Oncorhynchus mykiss (rainbow trout); 96-hour) | Not available | Not available | Not available |

Persistence and Degradability

No information was located.

Bioaccumulative Potential

No information was located.

Mobility in Soil

No information was located.

SECTION 13 – DISPOSAL CONSIDERATIONS

Product Disposal

This material is classified as hazardous by the Hazardous Products Regulations (SOR/2015-17). Do NOT dump into any sewers, on the ground or into any body of water. Dispose of unused product in accordance with local environmental and public health regulations. Follow label warnings even if container appears to be empty.

Packaging Disposal

Dispose of or recycle empty containers through an approved waste management facility.

SECTION 14 – TRANSPORTATION INFORMATION

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations.

SECTION 15 – REGULATORY INFORMATION

Canadian Regulations:

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no) * |
|-----------------------------|---|-------------------------|
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*A "Yes" indicates that all components of this product are listed on the inventory administered by the governing country(s) or are exempt.

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

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SECTION 16 – OTHER INFORMATION

These SDS summaries at the date of issue our best knowledge of the health and safety hazard information of the product, and how to safely handle and use the product in the workplace. Since Dyna Energy Consulting Inc cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company. Our responsibility for product as sold is subject to our standard term and conditions, a copy of which is sent to our customers and is also available upon request.

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