# Safety Data Sheet

Issue Date: 7/21/2022
Revision Date: 4/11/2023
Version 4

## 1. IDENTIFICATION

**Product identifier**

**Product Name** BAFR

**Other means of identification**

**SDS #** VTGO-004

**Recommended use of the chemical and restrictions on use**

**Recommended Use** Oilfield Friction Reducer and Viscosifier

**Details of the supplier of the safety data sheet**

Vendetta Chemical Solutions, LLC
4000 South CR 1140
Midland Texas, 79706
Contact@VendettaChems.com

**Emergency telephone number**

**Company Phone Number** 1-432-237-1451
**Emergency Telephone** 1-855-596-6516

## 2. HAZARDS IDENTIFICATION

**Appearance** Viscous liquid, Milky
**Physical state** Viscous liquid
**Odor** Aliphatic

**Classification of the substance or mixture**

Classification according to paragrah (d) of 29 CFR 1910.1200: Not Classified

**Label elements**

Labeling according to paragraph (f) of 29 CFR 1910.1200: None

**Hazard symbol(s)** None

**Signal word** None

**Hazard statements(s)** None

**Precautionary statement(s)** None

**Other Hazards**

Spills produce extremely slippery surfaces

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight - % |
|---|---|---|
| Petroleum Distilates, Hydrotreaed Light | 64742-47-8 | 20-60% |

*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.**

**Notes - Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5mm2/s measured at 40C.

## 4. FIRST AIDE MEASURES

**Description of first aid measures**

**Eye Contact** Get prompt medical attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Alternatively, rinse immediately with Diphoterine

**Skin Contact** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. In case of persistent skin irritation, consult a physician.

**Inhalation** No hazards which require special first aid measures. Move to fresh air

**Ingestion** Rinse mouth with water. Do NOT induce vomiting. Call a physician or poison control centre immediately.

**Most important sysmptoms and effects, both acute and delayed**

None under normal use.

**Indication of any immediate medical attention and special treatment needed**

None reasonably foreseeable.

## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

Water. Water Spray. Foam. Carbon dioxide (CO2). Dry powder.
Warning! Spills produce extremely slippery surfaces.

**Unsitable extinguishing media**

None known

**Special hazards arising from the substance or mixture**

**Hazardous decomposition products**

Thermal decomposition may produce: nitrogen oxides (Nox), carbon oxides (Cox), sulfur oxides (Sox). Hydrogen cyanide (hydrocloric acid) may be produced in the event of combustion in an oxygen deficient atmosphere

**Advice for firefighters**

**Protective measures**

Wear self-contained breathing apparatus and protective suit

**Other Information**

Spills produce extremely slippery surfaces.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions**

Spills produce extremely slippery surfaces. Do no touch or walk through spilled material.

**Protective Equipment**

Wear adequate personal protective equipment (see Section 8 Exposure Controls/Personal Protection).

**Emergency Procedures:**

Keep people away from spill/leak. Prevent further leakage or spillage if safe to do so.

**Environmental precautions**

As with all chemical products, do not flush into surface water

**Method and material for containment and cleaning up**

Small Spills

Do not flush with water. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large Spills

Do not flush with water. Dam up. Soak up with inert absobent material. Clean up promptly by scoop or vacuum.

Residues

After cleaning, flush away traces with water.

**Reference to other sections**

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 13: Disposal consideration

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

Avid contact with skin and eyes. Renders surfaces extremely slippery when spilled. When using do not eat, drink or smoke.

**Conditions for safe storage, including any incompatibilities**

Keep away from heat and sources of ignition. Freezing will affect the physcial condition and may damage the material. Incompatible with oxidizing agents.

**Specific end use(s)**

This information is not available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Appropriate engineering controls**

Use local exhaust if misting occurs. Natural ventilation is adequate in absence of mists.

**Environmental exposure controls**

Do not allowed unctrolled discharge of product into the environment

**Individual protection measures, such as personal protective equipment (PPE)**

| | |
|---|---|
| **Eye Protection** | Safety glasses with side shields |
| **Skin Protection** | Hand protection: PVC or other plastic material gloves.<br>Other: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur |
| **Respiratory Protection** | No personal respiratory protective equipment normally required |
| **Additional Advice** | Wash hands before breaks and at the end of workday. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

| | | | |
|---|---|---|---|
| **Physical state** | Viscous liquid | | |
| **Appearance** | Viscous liquid, Milky | **Odor** | Aliphatic |
| **Color** | opaque | **Odor Threshold** | Not determined |

| **Property** | **Values** |
|---|---|
| **pH** | Not applicable |
| **Melting point / freezing point** | <5°C |
| **Boiling point / boiling range** | >100°C |
| **Flash point** | Does not flash |
| **Evaporation Rate** | Not determined |
| **Flammability (Solid, Gas)** | Not determined |
| **Flammability Limit in Air** | |
| **Upper flammability or explosive limits** | Not expected to create explosive atmospheres |
| **Lower flammability or explosive limits** | Not expected to create explosive atmospheres |
| **Vapor Pressure** | 2.3 kPa @ 20°C |
| **Vapor Density** | 0.804 g/L @ 20°C |
| **Specific Gravity (g/mL @ 25C)** | 1.06 - 1.10 |
| **Relative density** | 1.0-1.2 (See Technical Data Sheet or Product Specifications for a more precise value, if available) |
| **Solubilit(ies)** | Completely miscible |
| **Partition coefficient** | Not applicable |
| **Autoignition temperature** | Not determined |
| **Decomposition temperature** | > 150°C |
| **Viscosity** | > 20.5 mm2/s @ 40°C |
| **Explosive properties** | Not expected to be explosive based on the structure |
| **Oxidizing properties** | Not expected to be explosive based on the structure |

## 10. STABILITY AND REACTIVITY

**Reactivity**

Stable under recommended sotrage conditions

**Chemical stability** .

Stable under recommended sotrage conditions

**Possibility of hazardous reactions**
None known

**Conditions to Avoid**
Protect from frost, heat and sunlight

**Incompatible materials**
Incompatible with oxidizing agents

**Hazardous decomposition products**
Thermal decomposition may produce: nitrogen oxides (Nox), carbon oxides (COx), sulfer oxides (SOx). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

## 11. TOXICOLOGICAL INFORMATION

**Information on toxicological effects**

**Information on the product as supplied:**

| | |
|---|---|
| Acute oral toxicity | LD50/oral/rat > 5000 mg/kg (Estimated) |
| Acute dermal toxicity | LD50/dermal/rat > 5000 mg/kg (Estimated) |
| Acute inhalation toxicity | The product is not expected to be toxic by inhalation |
| Skin corrosion/irritation | Non-irritating to skin |
| Serious eye damage/eye irritation | Not irritating |
| Respiratory/skin sensitisation | Not sensitizing |
| Mutagenicity | Not mutagenic |
| Carcinogenicity | Not carcinogenic |
| Reproductive toxicity | Not toxic for reporduction |
| STOT - Single exposure | No known effects |
| STOT - Repeated exposure | No known effects |
| Aspiration hazard | Due to the viscosity, the product does not present an aspiration hazard |

**Relevant information on the hazardous components:**

*Distillates (petroleum), hydrotreated light*

| | |
|---|---|
| Acute oral toxicity | LD50/oral/rat > 5000 mg/kg (OECD 401) |
| Acute dermal toxicity | LD50/dermal/rat > 5000 mg/kg (OECD 402) |
| Acute inhalation toxicity | LC0/inhalation/4 hours/rat >= 4951 mg/m3 (OCED 403) (Based on results obtained from tests on analogous products) |
| Skin corrosion/irritation | Not irritating (OECD 404)<br>Repeated exposure may cause skin dryness or cracking |
| Serious eye damage/eye irritation | Not irritating (OECD 405) |
| Respiratory/skin sensitisation | By analogy with similar products, this product is not expected to be sensitizing (OECD 406) |
| Mutagenicity | Not mutagenic (OECD 471, 473, 474, 476, 478, 479) |
| Carcinogenicity | Carcinogenicity study in rats (OECD 451): Negative |
| Reproductive toxicity | By analogy with similar substances, this substance is not expected to be toxic for reproduction.<br>NOAEL/rat = 300 ppm (OECD 421) |
| STOT - Single exposure | No known effects |
| STOT - Repeated exposure | Based on available data, product is not expected to demonstrate chronic toxic effects. NOAEL/oral/rat/90 days >= 3000 mg/kg/day (OECD 408) (Based on results obtained from test on analogous products) |

| | |
|---|---|
| Aspiration hazard | May be fatal if swallowed and enters airways |

## 12. ECOLOGICAL INFORMATION

**Toxicity**

**Information on the product as supplied**

| | |
|---|---|
| Actue toxicity to fish | LC50/Oncorhynchus mykiss/96 hours > 100 mg/L (Estimated) |
| Acutre toxicity to invertebrates | EC50/Daphnia magna/40 hours > 100 mg/L (Estimated) |
| Acute toxicity to algae | IC50/Algae/72 hours > 100 mg/L (Estimated) |
| Chronic toxicity to fish | No data available |
| Chronic toxicity to invertibrates | No data available |
| Toxicity to microorganisms | No data available |
| Effects on terrestrial organisms | No data available |
| Sediment toxicity | No data available |

**Relevant information on the hazardous components**

*Distillates (petroleum), hydrotreated light*

| | |
|---|---|
| Actue toxicity to fish | LC0/Oncorhynchus mykiss/96 hours > 1000 mg/L (OECD 203) |
| Acutre toxicity to invertebrates | EC0/Daphnia magna/48 hours > 1000 mg/L (OECD 202) |
| Acute toxicity to algae | IC0/Pseudokirchneriella subcapitata/72 hours > 1000 mg/L (OECD 201) |
| Chronic toxicity to fish | NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L |
| Chronic toxicity to invertibrates | NOEC/Daphnia magna/21 days > 1000 mg/L |
| Toxicity to microorganisms | EC50/Tetrahymena pyriformis/48h > 1000 mg/L |
| Effects on terrestrial organisms | No data available |
| Sediment toxicity | No data available. Readily biodegradable, exposure to sediment is unlikely |

**Persistence and degradability**

**Information on the product as supplied**

| | |
|---|---|
| Degradation | Not redily biodegradable |
| Hydrolysis | Noes not hydrolyse |
| Photolysis | No data available |

**Relevant information on the hazardous components**

*Distillates (petroleum), hydrotreated light*

| | |
|---|---|
| Degradation | Readily biodegradable. 67.6% / 28 days (OECD 301 F); 68.8% / 28 days (OECD 306); 61.2% / 61 days (OECD 304A) |
| Hydrolysis | Does not hydrolyse |
| Photolysis | No data available |

**Bioaccumulative potential**

**Information on the product as supplied**

The product is not expected to bioaccumulate

| | |
|---|---|
| Partition co-efficient (Log Pow) | Not applicable |
| Bioconcentration factor (BCF) | No data available |

**Relevant information on the hazardous components**

*Distillates (petroleum), hydrotreated light*

| | |
|---|---|
| Partition co-efficient (Log Pow) | 3 - 6 |
| Bioconcentration factor (BCF) | No data available |

**Mobility in soil**

**Information on the product as supplied**

No data available

**Relevant information on the hazardous components**

*Distillates (petroleum), hydrotreated light*

Koc: No data available

**Other adverse effects**

None known

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Waste from residues/unused products**

Dispose in accordance with local and national regulations

**Contaminated packaging**

Rinse empty containers with water and use the rinse-water to prepare the working solution. If recycling is not practicable, dispose of in compliance with local regulations

**Recycling**

In accordance with local and national regulations

## 14. TRANSPORT INFORMATION

**United States Department of Transportation (U.S. DOT)**

Not regulated as a hazardous material or dangerous goods for transportation.

**International Maritime Dangerous Goods (IMO / IMDG)**

Not regulated as a hazardous material or dangerous goods for transportation.

**International Air Transport Association (IATA)**

Not regulated as a hazardous material or dangerous goods for transportation.

## 15. REGULATORY INFORMATION

**Safety, health and enironmental regulations/legislation specific for the substance or mixture**

**Information on the product as supplied**

TSCA Chemical Substances Inventory

All components of this producrt are either listed as active on the inventory or are exempt from listing

US SARA Reporting Requirements

SARA (Section 311/312) hazard class: Not concerned

SARA Title III Sections

Section 302 (TPQ) - Reportable Quantity: Not concerned

Section 304 - Reportable Quantity: Not concerned

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity: Not concerned

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity: Not concerned

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity: Noot concerned

RCRA status

Not RCRA hazardous

California Proposition 65 Information

WARNING! This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm, Acrylamide

## 16. OTHER INFORMATION

| | | | | |
|---|---|---|---|---|
| **NFPA** | **Health hazards** | **Flammability** | **Reactivity** | **Other** |
| | 0 | 1 | 0 | - |
| **HMIS** | **Health hazards** | **Flammability** | **Reactivity** | **PPE Code:** |
| | 0 | 1 | 0 | B |

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**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials

**End of Safety Data Sheet**