SAFETY DATA SHEET

According to Federal Regulation 29 CFR 1910.1200

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: TRAMFLOC® 1054 Anionic Emulsion polymer
Type of product: Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Liquid anionic polymer for friction reduction.
Uses advised against: none

1.3. Details of the supplier of the safety data sheet

Company: Tramfloc, Inc.
6046 FM 2920 Rd. #615
Spring, TX 77379-2542
Telephone: 888-929-8973
Telefax: 480-383-6895
E-mail address: water@tramfloc.com

1.4 Emergency telephone number:

24-hour emergency number: 800-424-9300 CHEMTREC (CCN 20412), Outside US 703-527-3887

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of Regulation 29 CFR 1910.1200:
Not classified.

2.2. Label elements

Labelling according to paragraph (f) of Regulation 29 CFR 1910.1200:

Hazard symbol(s): none
Signal word: none
Hazard statement(s): H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H304: May be fatal if swallowed and enters airways.

Precautionary statement(s): P280: Wear protective gloves/protective clothing/eye protection/face protection.
P264: Wash (hands and exposed skin) thoroughly after handling. P270: Do not eat, drink or smoke when using this product.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.
P302+P352: IF ON SKIN: Wash with plenty of soap and water. P332+P313: If skin irritation occurs: Get medical advice/attention.
P362: Take off contaminated clothing and wash before reuse.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P331: Do NOT induce vomiting.

2.3. Other hazards
H401: Toxic to aquatic life. H411: Toxic to aquatic life with long lasting effects. Not classified as PBT or vPvB.

SECTION 3. Composition/information on ingredients
3.1 Substances
Not applicable, this product is not a substance.
3.2 Mixtures
Hazardous components
Distillates (petroleum), hydrotreated light
Concentration/ gamme : 20-35%
CAS Number: 64742-47-8
Classification according to paragraph (d) of Regulation 29 CFR 1910.1200: Asp. Tox. 1:
H227: Combustible liquid.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H304: May be fatal if swallowed and enters airways.
H401: Toxic to aquatic life.
H411: Toxic to aquatic life with long lasting effects.

SECTION 4. First aid measures
4.1. Description of first aid measures
Inhalation:
Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is labored, administer oxygen. If symptoms persist, obtain medical attention.

Skin contact:
Wash affected skin with plenty of water. Remove contaminated clothing immediately. If irritation (redness, rash, blistering) develops, get medical attention.

Eye contact:
Remove any contact lenses. If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes. If eye irritation persists, get medical advice/attention.
Ingestion:
Call a physician (or poison control centre immediately). Do not give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed
None under normal use.

4.3. Indication of any immediate medical attention and special treatment needed.
None reasonably foreseeable.
Other information:
None.

SECTION 5. Fire-fighting measures

5.1. Extinguishing media
Suitable extinguishing media:
Extinguish with water spray, dry chemical, sand or carbon dioxide.
Unsuitable extinguishing media:
None.

5.2. Special hazards arising from the substance or mixture
None anticipated.

5.3. Advice for fire-fighters
Protective measures:
Wear self-contained breathing apparatus and protective suit.
Other information:
Spills produce extremely slippery surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Personal precautions:
Put on protective equipment before entering danger area. Wear protective gloves/protective clothing/eye protection/face protection.

Protective equipment:
Wear suitable protective clothing, gloves and eye/face protection.

Emergency procedures:
Keep people away from spill/leak.

6.2. Environmental precautions
Contain spillages with sand, earth or any suitable adsorbent material. Do not allow to enter drains, sewers or watercourses.
6.3. Methods and material for containment and cleaning up

Contain spillages with sand, earth or any suitable adsorbent material. Transfer to a container for disposal or recovery. Wash the spillage area with water. If possible prevent water running into sewers.

6.4. Reference to other sections

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

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin, eyes or clothing. Wear protective gloves/protective clothing/eye protection/face protection.

7.2. Conditions for safe storage, including any incompatibilities.

Store at room temperature. Keep away from oxidizing agents.

7.3. Specific end use(s)

Liquid anionic polymer for friction reducer.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

Alkanes (C9-C15)

ACGIH: 1200 mg/m3 (8-hour)

8.2. Exposure controls

Appropriate engineering controls:

Use only with adequate ventilation to keep exposures (airborne levels of dust, fume, vapour etc) below recommended exposure limits.

Individual protection measures, such as personal protective equipment:

Eye/face protection: Safety glasses with side-shields.

Skin protection: Wear coveralls and/or chemical apron and rubber footwear where physical contact can occur.

Hand protection: PVC or other plastic material gloves.

Respiratory protection: In case of inadequate ventilation wear respiratory protection. Air- purifying respirator with combination organic vapor cartridge and dust/mist pre-filter may be sufficient. Check with protective equipment manufacturer’s data.

Additional advice: Wash hands before breaks and at the end of workday. Handle in accordance with good industrial hygiene and safety practice. Wash hands and face before breaks and immediately after handling the product.

Environmental exposure controls: Do not allow uncontrolled discharge of product into the environment.

Product name: TRAMFLOC® 1054

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SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: Liquid, Milky.
Odor: Slight petroleum
Odor Threshold: Not applicable.
PH: 6 - 8 (1% solution)
Melting point/freezing point: 6.66 (20°F)
Initial boiling point and boiling range: 100 (212°F)
Flash point: 99 (210°F)
Evaporation rate: Not applicable.
Flammability (solid, gas): No data available.
Upper/lower flammability or explosive limits: Not expected to create explosive atmospheres.
Vapour pressure: 10 @ 25°C (77°F)
Relative density: Not available.
Solubility(ies): Soluble
Partition coefficient: Not applicable.
Autoignition temperature: No data available.
Decomposition temperature: Not available.
Viscosity: < 20.5 mm2/s @ 40°C
Explosive properties: Not expected to be explosive based on the chemical structure.
Oxidizing properties: Not expected to be oxidizing based on the chemical structure.

9.2. Other information

None.

SECTION 10. Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

Incompatible with oxidizing agents.
10.6. Hazardous decomposition products
Carbon monoxide, carbon dioxide, acrid smoke

**SECTION 11. Toxicological information**

**11.1. Information on toxicological effects**

*Hydrotreated light distillates*

Acute oral toxicity: \( \text{LD}_{50}/\text{oral/rat} > 5000 \text{ mg/kg} \)

Acute dermal toxicity: \( \text{LD}_{50}/\text{dermal/rat} > 2000 \text{ mg/kg} \)

Acute inhalation toxicity: \( \text{LC}_{0} \geq 5.28 \text{ mg/l (vapor)} \) 4-r, rat. May cause drowsiness or dizziness.

Skin corrosion/irritation: Causes skin irritation. Repeated exposure may cause skin dryness or cracking.

Serious eye damage/eye irritation: Slightly irritating.

Respiratory/skin sensitization: Not sensitizing.

Mutagenicity: Not mutagenic.

Carcinogenicity: Not carcinogenic.

Reproductive toxicity: Not toxic for reproduction.

**STOT - single exposure:** No known effects.

**STOT - repeated exposure:**
- Oral: NOEAL 750 mg/kg
- Dermal: NOEAL 0.5 ml/kg bw
- Inhalation: NOAEL \( \geq 1000 \text{ mg/m}^3 \)

Aspiration hazard: Due to the viscosity, this product does not present an aspiration hazard.

**SECTION 12. Ecological information**

**12.1. Toxicity**

*Hydrotreated light distillates*

Ecotoxicity

**Short term**
- \( \text{LC}_{50} \) (96 hour): 2.5 mg/L (fish)
- \( \text{EC}_{50} \) (48 hour): 1.4 mg/L (crustacea)
- \( \text{EC}_{50} \) (72 hour): 1.3 mg/L (algae)

**Long Term**
- \( \text{NOEC} \) (28 days): 0.098 mg/L (fish)
- \( \text{LOEC} \) (21 days): 1.2 mg/L (crustacea)
- \( \text{LOEL} \) (72 hour): 1 mg/L (algae)

Sediment toxicity: No data available.

**12.2. Persistence and degradability**

The harmful ingredients are biodegradable.

**12.3. Bioaccumulative potential**

The product has no potential for bioaccumulation.
12.4. Mobility in soil
Information on the product as supplied:
No data available.

12.5. Other adverse effects
None known.

12.6. Results of PBT and vPvB assessment
Not classified as PBT or vPvB.

SECTION 13. Disposal considerations

13.1. Waste treatment methods
Waste from residues / unused products:
Dispose of in accordance with local regulations.

Contaminated packaging:
If recycling is not practicable, dispose of in compliance with local regulations.

Recycling:
The product and its packaging are not suitable for recycling.

SECTION 14. Transport information

Land transport (DOT)
Not classified.

Sea transport (IMDG)
Not classified.

Air transport (IATA)
Not classified.

SECTION 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Information on the product as supplied: TSCA Chemical Substances Inventory:
All components of this product are either listed on the inventory or are exempt from listing.

US SARA Reporting Requirements: SARA (Section 311/312) hazard class:
Immediate (acute)

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.
SECTION 16. Other information

NFPA and HMIS Ratings: NFPA:

Health: 1
Flammability: 1
Instability: 0

HMIS:
Health: 1
Flammability: 1
Physical Hazard: 0

PPE Code: B

This data sheet contains changes from the previous version in section(s):


Key or legend to abbreviations and acronyms used in the safety data sheet:

Abbreviations
Acute Tox. 4 = Acute toxicity Category Code 4
Asp. Tox. 1 = Aspiration hazard Category Code 1
Eye Dam 1 = Serious eye damage/eye irritation Category Code 1

H-Phrases
H302 - Harmful if swallowed
H304 - May be fatal if swallowed and enters airways
H318 - Causes serious eye damage

This SDS was prepared in accordance with the following:
Federal Regulation 29 CFR 1910.1200

The information contained herein is to the best of our knowledge and belief accurate. However, since the conditions of handling and use are beyond our control, Tramfloc, Inc. makes no guarantee for results obtained, and assumes no responsibility for damages incurred by use of this product. It is the responsibility of the user to comply with all federal, state, and local laws and regulations.