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® 197

Type of product: Mixture

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

Identified uses: Processing aid for mineral, mining, metal and low pH industrial applications.

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; Outside US: 703-527-3887

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

Classification according to paragraph (d) of 29 CFR 1910.1200:

Not classified.

2.2. Label elements

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

Hazard symbol(s): None.

Signal word: None.

Hazard statement(s): None.

Precautionary statement(s): None.

2.3. Other hazards

Aqueous solutions or powders that become wet render surfaces extremely slippery.

SECTION 3. Composition/information on ingredients

3.1. Substances

Product name: TRAMFLOC® 197 Page: 1 01/05/24

Not applicable, this product is a mixture.

3.2. Mixtures

This product is a mixture.

<u>Hazardous components</u>

Contains no reportable hazardous substances.

SECTION 4. First aid measures

4.1. Description of first aid measures

Inhalation:

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

Skin contact:

Wash off with soap and plenty of water. Get medical attention if irritation develops and persists.

Eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. In case of persistent eye irritation, consult a physician.

Ingestion:

Rinse mouth with water. Do NOT induce vomiting. Get medical attention if symptoms occur.

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:

Aqueous solutions or powders that become wet render surfaces extremely slippery.

SECTION 5. Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water. Water spray. Foam. Carbon dioxide (CO₂). Dry powder. Warning! Aqueous solutions or powders that become wet render surfaces extremely slippery.

Unsuitable extinguishing media:

None.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:

Thermal decomposition may produce: nitrogen oxides (NO_x) , carbon oxides (CO_x) , sulfur oxides (SO_x) . Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient

Product name: TRAMFLOC® 197 Page: 2 01/05/24

atmosphere.

5.3. Advice for fire-fighters

Protective measures:

In the event of fire, wear self-contained breathing apparatus.

Other information:

Aqueous solutions or powders that become wet render surfaces extremely slippery.

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:

Aqueous solutions or powders that become wet render surfaces extremely slippery.

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.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Small spills:

Do not flush with water. Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal. After cleaning, flush away traces with water.

Large spills:

Do not flush with water. Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal. After cleaning, flush away traces with water.

Residues:

Flush away with large quantities of water.

6.4. Reference to other sections

SECTION 7: Handling and storage; SECTION 8: Exposure controls/personal protection; SECTION 9: Physical and chemical properties; SECTION 13: Disposal considerations;

SECTION 7. Handling and storage

7.1. Precautions for safe handling

No special precautions required. Aqueous solutions or powders that become wet render surfaces extremely slippery.

7.2. Conditions for safe storage, including any incompatibilities

Product name: TRAMFLOC® 197 Page: 3 01/05/24

Keep in a dry place. Keep container closed when not in use. Incompatible with strong acids and oxidizing agents.

7.3. Specific end use(s)

This information is not available.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

None known.

8.2. Exposure controls

Appropriate engineering controls:

Use local exhaust if dusting occurs. Natural ventilation is adequate in absence of dusts.

Individual protection measures, such as personal protective equipment:

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

Skin protection: PVC or other plastic material gloves.

Other: Work clothes protecting arms, legs and body.

Respiratory protection: No personal respiratory protective equipment normally

required. Dust safety masks recommended where working

powder concentration is more than 10 mg/m3.

Additional advice: Handle in accordance with good industrial hygiene and safety

practice.

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment. Do not flush into surface water.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: Granular solid, White.

Odor: None.

Odor Threshold: Not applicable.

pH: 5 - 9 @ 5 g/L

Melting point/freezing point: > 150°C

Initial boiling point and boiling range: Not applicable.

Flash point: Not applicable.

Evaporation rate: Not applicable.

Flammability (solid, gas): No data available.

Product name: TRAMFLOC® 197 Page: 4 01/05/24

Upper/lower flammability or explosive limits: Not expected to create explosive atmospheres.

Vapor pressure: Not applicable.

Vapor density: Not applicable.

Relative density: 0.6 - 0.9

Solubility(ies): Soluble in water.

Partition coefficient: -2

Autoignition temperature: Does not self-ignite (based on the chemical structure).

Decomposition temperature: > 150°C

Viscosity: See Technical Bulletin.

Explosive properties: Kst = 0

Non-flammable to ignition sources of less than 2.5 kJ.

Oxidizing properties: Not expected to be oxidising based on the chemical structure.

9.2. Other information

None.

SECTION 10. Stability and reactivity

10.1. Reactivity

None known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Oxidizing agents may cause exothermic reactions.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Incompatible with strong acids and oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition may produce: nitrogen oxides (NO_x) , carbon oxides (CO_x) , sulfur oxides (SO_x) . Hydrogen cyanide (hydrocyanic acid).

SECTION 11. Toxicological information

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity: $LD_{50}/oral/rat > 5000 \text{ mg/kg}$

Product name: TRAMFLOC® 197 Page: 5 01/05/24

Acute dermal toxicity: $LD_{50}/dermal/rat > 5000 \text{ mg/kg}.$

Acute inhalation toxicity: The product is not expected to be toxic by inhalation.

Skin corrosion/irritation: Not irritating.

Serious eye damage/eye irritation:

Not 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: No known effect.

Aspiration hazard: No hazards resulting from the material as supplied.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish: $LC_{50}/Danio rerio/96 hours > 100 mg/L (OECD 203)$

LC₅₀/Fathead minnow/96 hours > 100 mg/L (OECD 203)

Acute toxicity to invertebrates: EC₅₀/Daphnia magna/48 hours > 100 mg/L. (OECD 202)

Acute toxicity to algae: IC_{50} /Scenedesmus subspicatus/72 hours > 100 mg/L (OECD

201)

Chronic toxicity to fish:

No data available.

Chronic toxicity to invertebrates: No data available.

Toxicity to microorganisms: No data available.

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation: Not readily biodegradable.

Hydrolysis: Does not hydrolyze.

Photolysis: No data available.

12.3. Bioaccumulative potential

Information on the product as supplied: Not bioaccumulating.

Partition co-efficient (Log Pow): -2

Product name: TRAMFLOC® 197 Page: 6 01/05/24

Bioconcentration factor (BCF): ~0

12.4. Mobility in soil

Information on the product as supplied:

None.

12.5. Other adverse effects

None known.

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products:

Dispose in accordance with local and national regulations. Can be landfilled or incinerated, when in compliance with local 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. Can be landfilled or incinerated, when in compliance with local regulations.

Recycling:

Store containers and offer for recycling of material when in accordance with the local regulations.

SECTION 14: Transport information

Land transport (DOT)

Not classified.

Sea transport (IMDG)

Not classified.

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: Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:

Not concerned.

Section 304 - Reportable Quantity:

Product name: TRAMFLOC® 197 Page: 7 01/05/24

Not concerned.

Section 313 (De minimis concentration):

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:

Not 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

SECTION 16. Other information

NFPA and HMIS Ratings:

NFPA:

Health: 0

Flammability: 0

Instability: 0

HMIS:

Health: 0

Flammability: 0

Physical Hazard: 0

PPE Code: B

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

SECTION 8. Exposure controls/personal protection, SECTION 15. Regulatory information, SECTION 16. Other Information.

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

Product name: TRAMFLOC® 197 Page: 8 01/05/24

Acronyms

STOT = Specific target organ toxicity

Training advice:

Do not handle until all safety precautions have been read and understood.

This SDS was prepared in accordance with the following:

U.S. Code of Federal Regulations 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.

Product name: TRAMFLOC® 197 Page: 9 01/05/24