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® 148 HSC

Type of product: Mixture

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

Identified uses: Processing aid for industrial applications.

Uses advised against: none

1.3. Details of the supplier of the safety data sheet

Company: Tramfloc, Inc.

6046 FM 2920 Road #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 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

Spills produce extremely slippery surfaces.

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable, this product is a mixture.

3.2. Mixtures

This product is a mixture.

Hazardous components

Distillates (petroleum), hydrotreated light

Concentration/ -range: 20 - 45%

CAS Number: 64742-47-8

Classification according to paragraph (d) of 29 CFR 1910.1200: Asp. Tox. 1;H304

Notes

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

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Concentration/ -range: < 5%

CAS Number: 69011-36-5

Classification according to paragraph (d) of 29 CFR 1910.1200: Acute Tox. 4;H302, Eye Dam.

1;H318

Naphtha (petroleum), hydrotreated heavy

Concentration/ -range: < 3%

CAS Number: 64742-48-9

Classification according to paragraph (d) of 29 CFR 1910.1200: Flam. Liq. 4;H227, Asp. Tox.

1;H304

Notes

Does not result in classification of the mixture if the kinematic viscosity is greater than 20.5 mmÇ/s measured at 40°C.

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.

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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.

Eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately.

Ingestion:

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

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:

Water. Water spray. Foam. Carbon dioxide (CO₂). Dry powder.

Warning! Spills produce extremely slippery surfaces.

Unsuitable extinguishing media:

None.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products:

Carbon oxides (CO_x). Nitrogen oxides (NO_x). Hydrogen cyanide (hydrocyanic acid) may be produced in the event of combustion in an oxygen deficient atmosphere.

5.3. Advice for fire-fighters

Protective measures:

Wear self-contained breathing apparatus and protective suit.

Other information:

Spills produce extremely slippery surfaces.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions:

Do not touch or walk through spilled material. Spills produce extremely slippery surfaces.

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

Do not contaminate water.

6.3. Methods 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:

Dam up. Do not flush with water. Clean up promptly by scoop or vacuum.

Residues:

Soak up with inert absorbent material. After cleaning, flush away traces with water.

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

This information is not available.

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

<u>Distillates (petroleum), hydrotreated light</u>

ACGIH: 200 mg/M³ (8 hours)

Naphtha (petroleum), hydrotreated heavy

OSHA: 400 mg/M³ (8 hours)

8.2. Exposure controls

Appropriate engineering controls:

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

Individual protection measures, such as personal protective equipment:

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

Skin protection: Hand protection: PVC or other plastic material gloves.

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 immediately after handling the

product. Wash hands before breaks and at the end of workday.

Environmental exposure controls:

Do not allow uncontrolled discharge of product into the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: Viscous liquid, Milky.

Odor: Aliphatic.

Odor Threshold: No data available.

pH: 5.5 - 8.5 @ 5 g/L

Melting point/freezing point: < 5°C

Initial boiling point and boiling range: > 100°C

Flash point: Does not flash.

Evaporation rate: No data available.

Flammability (solid, gas): Not applicable.

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

Vapor pressure: 2.3 kPa @ 20°C

Vapor density: 0.804 g/liter @ 20°C

Relative density: 1.05 - 1.15

Solubility(ies): Completely miscible.

Partition coefficient: Not applicable.

Autoignition temperature: No data available.

Decomposition temperature: > 150°C

Storage temperature ⁰ C: 5-35

Bulk viscosity: 250-2500 cP

Approx. viscosity @ 5 g/L: 1600

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

Oxidizing agents may cause exothermic reactions.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

Incompatible with oxidizing agents.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

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11.1. Information on toxicological effects

Information on the product as supplied:

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

Acute dermal toxicity: $LD_{50}/dermal/rat > 5000 \text{ mg/kg.}$ (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. (OECD 437)

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

hazard.

Relevant information on the hazardous components:

<u>Distillates (petroleum), hydrotreated light</u>

Acute oral toxicity: $LD_{50}/oral/rat > 5000 \text{ mg/kg (OECD 401)}$

Acute dermal toxicity: $LD_{50}/dermal/rabbit > 3160 \text{ mg/kg.}$ (OECD 402)

Acute inhalation toxicity: LC_{50} /inhalation/4 hours/rat > 5000 mg/m3 (OECD 403)

Skin corrosion/irritation: Not irritating. (OECD 404) Repeated exposure may cause skin

dryness or cracking.

Serious eye damage/eye irritation: Causes serious eye irritation. (OECD 405)

Respiratory/skin sensitization: By analogy with similar products, this product is not expected to

be sensitizing. (OECD 406)

Mutagenicity: Not mutagenic. (OECD 471, 474, 475, 476, 483)

Carcinogenicity: By analogy with similar substances, this substance is not expected

to be carcinogenic. Based on the absence of mutagenicity, it is

unlikely that the substance is carcinogenic.

Reproductive toxicity: NOAEL/rat >= 300 ppm. (OECD 421)

Prenatal Development Toxicity Study (OECD 414)

- NOAEL/Maternal toxicity/rat >= 5220 mg/kg/day

Product name: TRAMFLOC® 148 HSC Page: 7 01/04/24

- NOAEL/Developmental toxicity/rat >= 5220 mg/kg/day

STOT - Single exposure: No known effects.

STOT - Repeated exposure: No known effect.

Aspiration hazard: May be fatal if swallowed and enters airways.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute oral toxicity: $LD_{50}/oral/rat = 500 - 2000 \text{ mg/kg}$

Acute dermal toxicity: $LD_{50}/dermal/rabbit > 2000 \text{ mg/kg}.$

Acute inhalation toxicity: No data available.

Skin corrosion/irritation: Not irritating. (OECD 404)

Serious eye damage/eye irritation: Not irritating. (OECD 405)

Respiratory/skin sensitization: The results of testing on guinea pigs showed this material to be

non-sensitizing.

Mutagenicity: In vitro tests did not show mutagenic effects. In vivo tests did not

show mutagenic effects.

Carcinogenicity: Based on the absence of mutagenicity, it is unlikely that the

substance is carcinogenic.

Reproductive toxicity: Two-Generation Reproduction Toxicity (OECD 416)

- NOAEL/rat > 250 mg/kg/day

Prenatal Development Toxicity Study (OECD 414)

- NOAEL/Maternal toxicity/rat > 50 mg/kg/day

- NOAEL/Developmental toxicity/rat > 50 mg/kg/day

STOT - Single exposure: No known effects.

STOT - Repeated exposure: NOAEL/oral/rat/600 days = 50 mg/kg/day

Aspiration hazard: No known effects

Naptha (petroleum), hydrotreated heavy

Acute oral toxicity: $LD_{50}/oral/rat > 5000 \text{ mg/kg (OECD 401)}$

Acute dermal toxicity: $LD_{50}/dermal/rabbit > 3160 \text{ mg/kg.}$ (OECD 402)

Acute inhalation toxicity: $LC_{50}/inhalation/4 \text{ hours/rat} > 5000 \text{ mg/m3} \text{ (OECD 403)}$

Skin corrosion/irritation: Not irritating. (OECD 404) Repeated exposure may cause skin

dryness or cracking.

Serious eye damage/eye irritation: Causes serious eye irritation. (OECD 405)

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Respiratory/skin sensitization: By analogy with similar products, this product is not expected to

be sensitizing. (OECD 406) No respiratory sensitization has been

observed in the workplace.

Mutagenicity: Negative in the Ames Test (OECD 471). Negative in the In vitro

Mammalian Cell Gene Mutation Test (OECD 476). Negative in the In Vitro Mammalian Chromosome Aberration Test (OECD 473). Negative in the Rodent Dominant Lethal Test (OECD 478).

Not mutagenic. (OECD 474, 479)

Carcinogenicity: By analogy with similar substances, this substance is not expected

to be carcinogenic. (OECD 453)

Reproductive toxicity: By analogy with similar substances, this substance is not expected

to be toxic for reproduction. (OECD 413, 414, 415)

STOT - Single exposure: No known effects.

STOT - Repeated exposure: By analogy with similar products, this product is not expected to

demonstrate chronic toxic effects. (OECD 413)

NOAEL/oral/rat/90 days >= 3000 mg/kg/day (OECD 408) (Based

on results obtained from tests on analogous products)

Aspiration hazard: May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish: LC_{50} /Oncorhynchus mykiss/96 hours > 100 mg/L. (Estimated)

LC₅₀/Danio rerio/96 hours > 100 mg/L (Estimated)

Acute toxicity to invertebrates: $EC_{50}/Daphnia magna/48 hours > 100 mg/L$. (Estimated)

Acute toxicity to algae: $IC_{50}/Algae/72 \text{ hours} > 100 \text{ mg/L}$ (Estimated)

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.

Distillates (petroleum), hydrotreated light

Acute toxicity to fish: $LC_{50}/Fish/96 \text{ hours} > 1028 \text{ mg/L}$

Acute toxicity to invertebrates: EC50/Invertebrates/48 hours > 3193 mg/L

Acute toxicity to algae: $IC_{50}/Algae/72 \text{ hours} = 993 \text{ mg/L}$

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Chronic toxicity to fish: NOEC/Oncorhynchus mykiss/28 days > 1000 mg/L (Estimated)

Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1000 mg/L (Estimated)

Toxicity to microorganisms: $EC_{50}/activated sludge/3 hours > 100 mg/L (OECD 209)$

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Acute toxicity to fish: LC_{50} /Cyprinus carpio/96 hours = 1 - 10 mg/L (OECD 203)

Acute toxicity to invertebrates: $EC^{50}/Daphnia/48 \text{ hours} = 1 - 10 \text{ mg/L (OECD 202)}$

Acute toxicity to algae: $IC_{50}/Desmodesmus subspicatus/72 hours = 1 - 10 mg/L (OECD)$

201)

Chronic toxicity to fish:

No data available.

Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days > 1 mg/L (OECD 202)

Toxicity to microorganisms: No data available.

Toxicity to microorganisms: $EC_{10}/activated sludge/17 hours > 10000 mg/L (DIN 38412-8)\\\$

Effects on terrestrial organisms: No data available.

Sediment toxicity: No data available.

Naphtha (petroleum), hydrotreated heavy

Acute toxicity to fish: $LC_0/Oncorhynchus mykiss/96 hours > 1000 mg/L. (OECD 203)$

(Based on results obtained from tests on analogous products)

Acute toxicity to invertebrates: EC₀/Daphnia magna/48 hours > 1000 mg/L. (OECD 202) (Based

on results obtained from tests on analogous products)

Acute toxicity to algae: NOEC/Pseudokirchneriella subcapitata/72 hours = 1000 mg/L

(OECD 201) (Based on results obtained from tests on analogous

products)

Chronic toxicity to fish: NOEC/Oncorhynchus mykiss/28 days = 0.316 mg/L (Estimated)

Chronic toxicity to invertebrates: NOEC/Daphnia magna/21 days = 1 mg/L (OECD 211)

Toxicity to microorganisms: $EC_{50}/Tetrahymena pyriformis/48 h > 1000 mg/L$.

Effects on terrestrial organisms: No data available.

Sediment toxicity: Sediment toxicity: Exposure to sediment is unlikely.

12.2. Persistence and degradability

Information on the product as supplied:

Degradation: Not readily biodegradable.

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Hydrolysis: Does not hydrolyze.

Photolysis: No data available.

Relevant information on the hazardous components:

Distillates (petroleum), hydrotreated light

Degradation: Readily biodegradable. 82% / 24 days (OECD 301 F); 74% / 28 days

(OECD 306)

Hydrolysis: Does not hydrolyze.

Photolysis: Half-life: 0.254 - 0.850 days

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Degradation: Readily biodegradable. > 60% / 28 days (OECD 301 B)

Hydrolysis: Does not hydrolyze.

Photolysis: No data available.

Naphtha (petroleum), hydrotreated heavy

Degradation: Inherently biodegradable. 31.5% / 28 days (OECD 301 F)

Hydrolysis: Does not hydrolyze.

Photolysis: No data available.

12.3. 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): Not applicable.

Bioconcentration factor (BCF): No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Partition co-efficient (Log Pow): > 3

Bioconcentration factor (BCF): No data available.

Naphtha (petroleum), hydrotreated heavy

Partition co-efficient (Log Pow): No data available.

Product name: TRAMFLOC® 148 HSC Page: 11 01/04/24

Bioconcentration factor (BCF): No data available.

12.4. Mobility in soil

Information on the product as supplied:

No data available.

Distillates (petroleum), hydrotreated light

Koc: No data available.

Poly(oxy-1,2-ethanediyl), a-tridecyl-w-hydroxy-, branched

Koc: > 5000

Naphtha (petroleum), hydrotreated heavy

Koc: No data available.

12.5. Other adverse effects

None.

SECTION 13: Disposal considerations

13.1. 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. Can be landfilled or incinerated, when in

compliance with local regulations.

Recycling: In accordance with local and national regulations.

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:

Product name: TRAMFLOC® 148 HSC Page: 12 01/04/24

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:

Not concerned.

Section 313 (De mini mis 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: 1

Instability: 0

HMIS:

Health: 0

Flammability: 1

Physical Hazard: 0

PPE Code: B

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

SECTION 5. Fire-fighting measures, SECTION 8. Exposure controls/personal protection, SECTION 12. Ecological information, SECTION 15. Regulatory information, SECTION 16. Other Information.

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

Acronyms

STOT = Specific target organ toxicity

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

Flam. Liq. 4 = Flammable liquid Category Code 4

Hazard statements

H227 - Combustible liquid

H302 - Harmful if swallowed

H304 - May be fatal if swallowed and enters airways

H318 - Causes serious eye damage

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.

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