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® 374

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 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):	none
Precautionary statement(s):	none

2.3. Other hazards

Spills produce extremely slippery surfaces.

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

Formaldehyde

Concentration/ -range:	< 0.1%
CAS Number:	50-00-0
Classification according to paragraph (d) of 29 CFR 1910.1200:	Flam. Liq. 4;H227, Acute Tox. 3;H301, Acute Tox. 3;H311, Acute Tox. 3;H331, Skin Corr. 1B;H314, Skin Sens. 1A;H317, Carc. 1B;H350, Muta. 2;H341

For explanation of abbreviations see section 16

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 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. Alternatively, rinse immediately with Diphoterine®. Get prompt medical attention.
Ingestion:	Rinse mouth with water. Do NOT induce vomiting. Get medical attention immediately if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed

Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

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 (CO_2). 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:

Thermal decomposition may produce: nitrogen oxides (NO_x), carbon oxides (CO_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.

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

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. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Large spills:

Do not flush with water. Dam up. 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. Renders surfaces extremely slippery when spilled. When using, do not eat, drink or smoke.

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. Material has a three month shelf life.

Incompatible with oxidizing agents.

7.3. Specific end use(s)

None.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits:

Formaldehyde

OSHA: 0.75 ppm (8 hours) ; 2 ppm (15 minutes)

ACGIH: 0.3 ppm (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 and face 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:	Liquid, clear to slightly opalescent.
Odor:	amine-like.
Odor Threshold:	Not applicable.
pH:	8 - 11.5
Melting point/freezing point:	< 0° C

Initial boiling point and boiling range: > 100°C

Flash point:	Does not flash.
Evaporation rate:	No data available.
Flammability (solid, gas):	Not applicable.

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:	1.0 - 1.1
Solubility(ies):	Completely miscible.
Partition coefficient:	< 0
Autoignition temperature:	Does not self-ignite (based on the chemical structure).
Decomposition temperature:	> 150°C

Viscosity: See Technical Bulletin.

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

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

11.1. Information on toxicological effects

Information on the product as supplied:

Acute oral toxicity:	LD_{50}/oral/rat > 5000 mg/kg.
Acute dermal toxicity:	LD_{50}/dermal/rat > 5000 mg/kg.
Acute inhalation toxicity:	Testing by the inhalation route is inappropriate because exposure of humans via inhalation is unlikely: the substance has no vapor pressure and there is practically no exposure to inhalable aerosols.
Skin corrosion/irritation:	Non-irritating to skin.

Serious eye damage/eye irritation: Slightly irritating.

Respiratory/skin sensitization:	The product contains a small amount of sensitizing substances which may provoke an allergic reaction among sensitive individuals in contact with skin.
Mutagenicity:	By analogy with similar products, this product is not expected to to be mutagenic.
Carcinogenicity:	By analogy with similar substances, this substance is not expected to be carcinogenic.
Reproductive toxicity:	By analogy with similar substances, this substance is not expected to be 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.

Relevant information on the hazardous components:

Formaldehyde

Acute oral toxicity:	LD_{50}/oral/rat = 5 - 50 mg/kg. (OECD 401)
Acute dermal toxicity:	LD_{50}/dermal/rat = 270 mg/kg.
Acute inhalation toxicity:	LC_{50}/inhalation/4 hours/rat = 600 mg/m^3
Skin corrosion/irritation:	Causes severe irritation and or burns. (OECD 404)

Serious eye damage/eye irritation: Risk of serious damage to eyes.

Respiratory/skin sensitization:	Sensitizing to skin. (OECD 406)
Mutagenicity:	Possible mutagen.
Carcinogenicity:	May cause cancer.
IARC:	1
Reproductive toxicity:	Not toxic for reproduction.
STOT - Single exposure:	No known effects.
STOT - Repeated exposure:	No known effect.
Aspiration hazard:	No known effects.

SECTION 12. Ecological information

12.1. Toxicity

Information on the product as supplied:

Acute toxicity to fish:	LC_{50}/Fish/96 hours > 100 mg/L (OECD 203)
Acute toxicity to invertebrates:	EC_{50}/Daphnia magna/48 hours > 100 mg/L. (OECD 202)
Acute toxicity to algae:	Algal inhibition tests are not appropriate. The flocculation characteristics of the product interfere directly in the test medium preventing homogenous distribution which invalidates the test.
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.

Relevant information on the hazardous components:

Formaldehyde

Acute toxicity to fish:	LC_{50}/Fish/96 hours = 1 - 10 mg/L
Acute toxicity to invertebrates:	EC_{50}/Daphnia pulex/48 hours = 10 - 100 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:	No data available.
Toxicity to microorganisms:	EC_{50}/activated sludge/120 hours = 34.1 mg/L
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.

Relevant information on the hazardous components:

Formaldehyde

Degradation:	Readily biodegradable. >90% / 14 days (OECD 301 C) ; >90% / 28 days (OECD 301D)
Hydrolysis:	Does not hydrolyze
Photolysis:	Half-life (direct photolysis): 1.71 days

12.3. Bioaccumulative potential

Information on the product as supplied:

The product is not expected to bioaccumulate.

Partition co-efficient (Log Pow): < 0

Bioconcentration factor (BCF): No data available.

Relevant information on the hazardous components:

Formaldehyde

Partition co-efficient (Log Pow): 0.35 @ 25°C, pH = 3.5

Bioconcentration factor (BCF): <1

12.4. Mobility in soil

Information on the product as supplied:

Exposure to soil is not to be expected.

Koc: No data available.

Relevant information on the hazardous components:

Formaldehyde

Koc: 15.9

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.

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.

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:

Not concerned.

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:

Contains one or more of the listed substances.

Section 304 - Reportable Quantity:

Contains one or more of the listed substances.

Section 313 (De minimis concentration):

Contains one or more of the listed substances.

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:

Contains one or more of the listed substances.

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:

Contains one or more of the listed substances.

CERCLA

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

Contains one or more of the listed substances.

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, Formaldehyde (gas), Acrylamide

Relevant information on the hazardous components:

Formaldehyde

SARA Title III Sections:

Section 302 (TPQ) - Reportable Quantity:	100 lbs
Section 304 - Reportable Quantity:	100 lbs
Section 313 (De minimis concentration):	0.1%

Clean Water Act

Section 311 Hazardous Substances (40 CFR 117.3) - Reportable Quantity:	100 lbs

Clean Air Act

Section 112(r) Accidental release prevention requirements (40 CFR 68) - Reportable Quantity:	15000 lbs

CERCLA

Hazardous Substances List (40 CFR 302.4) - Reportable Quantity:	100 lbs
RCRA status :	Listed
DOT RQ (lbs):	100 lbs
California Proposition 65 Information:	Listed

SECTION 16. Other information

NFPA and HMIS Ratings:

NFPA:

Health: 1

Flammability: 0

Instability: 0

HMIS:

Health: 1

Flammability: 0

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 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. 3 = Acute toxicity Category Code 3

Carc. 1B = Carcinogenicity Category Code 1B

Flam. Liq. 4 = Flammable liquid Category Code 4

Muta. 2 = Germ cell mutagenicity Category Code 2

Skin Corr. 1B = Skin corrosion/irritation Category Code 1B

Skin Sens. 1A = Skin sensitization Category Code 1A

Hazard statements

H227 - Combustible liquid

H301 - Toxic if swallowed

H311 - Toxic in contact with skin

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

H331 - Toxic if inhaled

H341 - Suspected of causing genetic defects

H350 - May cause cancer

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.