

MATERIAL SAFETY DATA SHEET

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LAST REVISION DATE: 01-06-02 APPROVAL: JJF
CURRENT REVISION DATE: 06-01-03
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IDENTIFICATION

PRODUCT NAME: Tramfloc® 904 EPA PRODUCT REGSTRAT. NO: NA
TSCA INVENTORY/CAS. NO.: 534-18-9 EPA ESTABLISHMENT NO.: NA
CHEMICAL NAME: SODIUM TRITHIOCARBONATE

HAZARDOUS INGREDIENTS - % COMPOSITION - OSHA-TWA,ppm - ACGIH-TWA,ppm
SODIUM TRITHIOCARBONATE 25 NE

PHYSICAL DATA

BOILING POINT (F/C): >212/100 SPECIFIC GRAVITY (Water = 1): 1.20
VAPOR PRESSURE (mm Hg): NA MELTING POINT: NA
VAPOR DENSITY (Air - 1): NA EVAPORATION RATE: 1
SOLUBILITY IN WATER: COMPLETE (Water = 1)
% VOLATILE: 75, WATER FREEZING POINT (F/C): 32/0
TYPICAL pH: 12.8 TO 13.5

APPEARANCE AND ODOR: Orange solution with characteristic sulphur odor.
Contains hydrogen sulfide in drum headspace, 35 ppm.

SPECIAL HAZARD DESIGNATIONS

NFPA: HEALTH * FLAMMABILITY * REACTIVITY * PROTECTIVE EQUIPMENT
3 0 0 2

KEY: 0-MINIMAL, 1-SLIGHT, 2-MODERATE, 3-SERIOUS, 4-SEVERE

NR: NOT REQUIRED, NE: NOT ESTABLISHED, NA: NOT APPLICABLE

FIRE AND EXPLOSION DATA: TRAMFLOC 904

FLAMMABLE LIMITS IN AIR, % BY VOLUME: UPPER: NA; LOWER: NA
FLASH POINT (TEST METHOD) : TAG CLOSED CUP (ASTM D56): 200° F
TAG OPEN CUP (ASTM D1310): NE

EXTINGUISHING MEDIA: Product is non-flammable as supplied. Use water,
foam, carbon dioxide or dry chemical to extinguish fire.

PRODUCT NAME: Tramfloc® 904

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus while extinguishing fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Product is non-flammable as supplied. Do not depend on ambient air for breathing air supply during fires. Fire may result into release of toxic gases such as oxides of carbon, nitrogen, sulfur and hydrogen sulfide.

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REACTIVITY DATA

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STABILITY: Stable.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Acidification releases flammable toxic gases.

MATERIALS TO AVOID: Mineral acids such as sulfuric, nitric, hydrochloric.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

A-Thermal decomposition may release gases such as carbon disulfide.

B-Combustion of dry film may release oxides of carbon and sulfur.

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HEALTH HAZARD DATA

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ROUTES OF ENTRY/EFFECTS OF EXPOSURE:

Ingestion (swallowing): May cause nausea and vomiting.

Skin contact: Corrosive to skin.

Eye contact: Corrosive to eyes.

Inhalation: Vapors may be irritating to nose, throat, and respiratory tract producing symptoms of nausea in poorly ventilated areas.

TARGET ORGAN EFFECT: NE; DELAYED EFFECTS: NE; CARCINOGENICITY: NE

TOXICITY: Dermal LD 50 - Albino rabbit >3.10 gm/Kg

Inhalation LC 50 - Rat >5.93 mg/liter

Oral LD 50 - Female Rats: 3.5 gm/Kg; Male Rats: 2.9 gm/Kg

EMERGENCY AND FIRST AID DATA

Ingestion: If swallowed, dilute by drinking copious amounts of water and obtain medical attention.

Skin contact: Wash affected skin with soap and water and obtain medical attention.

Eye contact: Wash eyes with large amounts of water for at least 15 minutes. Obtain medical attention.

Inhalation: Remove subject to fresh air. Obtain medical attention.

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SPILL OR LEAK PROCEDURES

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PRODUCT NAME: Tramfloc® 904

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STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Soak up spills with absorbent material and scoop into drums. Follow all local, state, and federal regulations for disposal. Do not discharge into lakes and streams. The floor may be slippery. Use caution to avoid falls.

WASTE DISPOSAL METHOD:

Hazardous waste. Follow all local, state, and federal regulations for waste disposal. RCRA ID No. D002

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

Wear rubber gloves and safety goggles. Avoid breathing vapors and avoid skin contact.

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SPECIAL PROTECTION INFORMATION

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RESPIRATORY PROTECTION: None required if good ventilation is maintained. Otherwise, wear self-contained breathing apparatus. Pressure Demand, MSHA/NIOSH approved or equivalent).

VENTILATION PROTECTION: Local exhaust: Yes: Mechanical (general): Yes.
PROTECTIVE GLOVES: Yes.
EYE PROTECTION: Safety goggles.

OTHER PROTECTION: Long sleeve shirt, long pants, boots, and hat.

WORK/HYGIENIC PRACTICES: Follow normal hygienic practices for handling chemicals.

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SARA-TITLE III INGREDIENT INFORMATION

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INGREDIENTS

NAME: SODIUM SULFIDE
CAS NO.: 1313-82-2
APPLICABLE SARA SUBSECTIONS: 304
THRESHOLD PLANNING QUANTITY: NONE
THRESHOLD REPORTING QUANTITY: 100 LBS.

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NEW JERSEY/PENNSYLVANIA RTK TOTAL INGREDIENTS LABEL
TITLE 8

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PRODUCT NAME: Tramfloc® 904

CAS NO.\NJEIN TRADE SECRET COMMON NAME\COMMENTS

7732-18-5

WATER

534-18-9

SODIUM TRITHIOCARBONATE

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FOR CALIFORNIA CUSTOMERS ONLY
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CALIFORNIA PROPOSITION 65: This product does contain toxic chemicals currently on the California List of known carcinogens and reproductive toxins.

PRODUCT INFORMATION: Pursuant to the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) we are providing this information to you. In part, this law requires that "clear and reasonable warning" be given to any individual, knowingly or intentionally exposed to any substances identified by the state as being cancer or reproductive hazards, unless it can be shown that the exposure poses "no significant risk." It has not been feasible to carry out the detailed analysis that would be required to determine whether each of the materials on the list of chemicals known to cause cancer or reproductive toxicity associated with the Act, is present in detectable amounts in our products. Based on available data, the following chemicals listed by Proposition 65 may be present in this product:

CARBON DISULFIDE 75-15-0 HEADSPACE >95 PPM

Please read the entire MSDS before using a product and always use it as directed by the Material Safety Data Sheet. Of course, you may wish to conduct further evaluation based on your specific end-use. The warning above is the result of compliance with Proposition 65. There is no new scientific or technical evidence which suggests an increased risk associated with using this product. We are continuing to monitor proposition 65 activity and will keep you informed of any pertinent changes.

CALIFORNIA RULE 443.1 VOC'S:

Volatile Organic components (VOC'S) = Substances with vapor pressure of => 0.5 mmHg at 104°C (219.2°F).

This product contains <1.0 g/liter VOC'S and <1.0 g/liter VOC'S (less water and exempt compounds).