MATERIAL SAFETY DATA SHEET

SECTION I PRODUCT AND COMPANY IDENTIFICATION

COMMON NAME
295 Red Fluid
PRODUCT FILE NUMBER
920:405-924BA-10
MANUFACTURER'S NAME
Meriam Instrument
ADDRESS
10920 Madison Ave.

CITY, STATE, ZIP
Cleveland, Ohio 44102

PRODUCT MODEL NUMBER
924BA
PRODUCT USE
Indicating Fluid
EMERGENCY PHONE NUMBERS
1-800-255-3924 (US), + 01 813 248 0585 (International)
ENGINEERING CONTROL DATA
MSDS - A35803-1, Rev. N, EO 7393
Drawing - A35324
DATE PREPARED
05-Nov-2014

SECTION II HAZARDS IDENTIFICATION

ACUTE

EYES
May cause mild irritation, redness, and tearing.
SKIN CONTACT
May cause slight irritation. May cause severe irritation with repeat or prolonged contact. LD50 (dermal, rat) - 5250 mg/kg
INGESTION
LD50 (oral, rat) - 1200 mg/kg.
INHALATION
Very Toxic by Inhalation. TBE is a central nervous system depressant and a hepatotoxin. May cause irritation of nasal and respiratory passages. Has very low vapor pressure at room temperature.

CHRONIC

CHRONIC EFFECTS OF EXPOSURE
May cause liver, lung, testes, and kidney damage. Exposure above TLV may increase the body's burden of bromine. To the best of our knowledge all toxicological properties have not been thoroughly investigated.

SECTION III COMPOSITION/INFORMATION ON INGREDIENTS

1.Chemical Name: Tetrabromoethane **Common Name:** Acetylene Tetrabromide
CAS No: 79-27-6
OSHA/PEL: 14mg/m^3
ACGIH/TLV: Air: 1 ppm
% : 99

2.Chemical Name: 1-Chloronaphthalene
CAS No: 90-13-1
OSHA/PEL: NE*
ACGIH/TVL: NE*
% : <1

3.Chemical Name: Red Dye
CAS No: 4477-79-6
OSHA/PEL: NE*
ACGIH/TVL: NE*
% : Trace

*Not Established

SECTION IV FIRST AID MEASURES

EYES
Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get medical attention.
SKIN CONTACT
Remove contaminated clothing and wash off skin with soap and water. Wash contaminated clothes. If irritation develops, contact a physician.
INHALATION
Remove from exposure. Seek medical attention.
INGESTION
Give two glasses of water and induce vomiting. Seek medical attention immediately.

SECTION V FIRE FIGHTING MEASURES

FLASH POINT **METHOD USED** **FLAMMABLE LIMITS (in Air % by Vol.)** **LEL** **UEL**
Non - Flashing Non - Flammable
AUTO-IGNITION TEMPERATURE **EXTINGUISHER MEDIA**
335°C Water, CO_2, Dry Chemical, Foam
SPECIAL FIRE FIGHTING PROCEDURES
Evacuate area of all unnecessary personnel. Use NIOSH/MSHA approved self-contained breathing apparatus and other protective equipment.
UNUSUAL FIRE AND EXPLOSION HAZARDS
Emits highly toxic fumes of bromine, hydrogen bromide, and carbonyl bromide.

SECTION VI ACCIDENTAL RELEASE MEASURES

RESPONSE TO SMALL SPILLS
Absorb with non-combustible absorbent material. Dispose of properly, prevent from entering sewers. The product is a non-hazardous waste when spilled material is disposed of defined in Resource Conservation Recovery Act (RCRA) regulations (40CFR261).

WASTE DISPOSAL
Place in an appropriate disposal facility in compliance with Federal, State, and Local regulations.

SECTION VII HANDLING AND STORAGE

HANDLING AND STORAGE: Skin and eye contact should be avoided as good industrial practice. Wearing of protective gloves and eye protection is recommended. Wash hands and contaminated skin area after handling. Follow all warnings and precautions even after container is emptied. Wash thoroughly after handling or at the end of the shift.

OTHER PRECAUTIONS: Store in cool dry place away from strong oxidizers and acids. Keep container tightly closed when not in use. All handling equipment should be properly grounded to prevent the build-up of electrostatic charges. Storage area should be equipped with CO2 system. Handle in accordance with good industrial hygiene and safety practices.

SECTION VIII EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION
Not typically required. If exposure exceeds permissible exposure limits wear a self-contained breathing apparatus in compliance with NIOSH/MSHA specifications. Comply with 29CFR 1910.134.

VENTILATION
General (mechanical) room ventilation is generally satisfactory. Special, local ventilation may be needed at points where vapors can be expected to exceed exposure limits.

PROTECTIVE GLOVES
For the best protection wear compatible chemical resistant gloves. Wear additional protective garments were necessary.

EYE PROTECTION
Wear chemical goggles if there is likelihood of contact with eyes.

ADDITIONAL PROTECTIVE CLOTHING OR EQUIPMENT
Boots, aprons, or chemical suits should be used when necessary to prevent skin contact. Eye wash fountains and safety showers should be available for emergency use.

SECTION IX PHYSICAL & CHEMICAL PROPERTIES

BOILING POINT
475°F 245°C

SPECIFIC GRAVITY (H_2O=1)
2.95 @ 25.8°C

VAPOR PRESSURE (20°C)
0.02 mmHg

VAPOR DENSITY (AIR=1)
12

SOLUBILITY IN WATER
0.062g/100g @20° C

REACTIVITY IN WATER
None

EVAPORATION RATE (BuAc=1)
>100

MELTING POINT
1°C

pH
NA

APPEARANCE & ODOR
Red color - sweet, pungent odor

SECTION X STABILITY AND REACTIVITY

STABILITY
Stable

CONDITION TO AVOID
Decomposes slowly at 50°C

INCOMPATIBILITY (Materials to Avoid)
Reacts with chemically active metals or strong caustics. In the presence of steam, contact with hot iron, aluminum, and zinc, may cause formation of toxic vapors. Softens or destroys most plastics and rubbers.

HAZARDOUS DECOMPOSITION PRODUCTS
Upon heating to decomposition, irritant, toxic hydrogen bromide, bromine and carbonyl bromide fumes may evolve.

HAZARDOUS POLYMERIZATION
Will not occur

CONDITIONS TO AVOID
NA

SECTION XI TOXICOLOGICAL INFORMATION

Chemical Listed as Carcinogen or Potential Carcinogen

National Toxicology Program
NA

I.A.R.C. Monographs
NA

OSHA
NA

LC50 (rat) 549mg/m^3/4 hour

SECTION XII ECOLOGICAL INFORMATION

TBE is classified as a marine pollutant.

SECTION XIII DISPOSAL CONSIDERATIONS

Disposal: Dispose of all cleanup materials in accordance with all Local, State, and Federal regulations.

10920 Madison Avenue ♦ Cleveland, Ohio 44102 ♦ (216) 281-1100 FAX (216) 281-0228

SECTION XIV TRANSPORT INFORMATION

Proper Shipping Name:	Tetrabromoethane
Hazard Class or Division:	6.1
Identification Number:	UN2504
Packing Group:	III
Packing Authorization:	D.O.T 49 CFR 173.153 & 173.203
IATA Packing Instructions:	611
Marking:	Marine Pollutant

SECTION XV REGULATORY INFORMATION

TSCA (TOXIC SUBSTANCE CONTROL ACT): Reported in the EPA TSCA Inventory.

SARA Section 302 Extremely Hazardous Substances (EHS): Not Provided

SARA Section 304 CERCLA Hazardous Substances: Not Provided

SARA Section 311/312 Hazard Communication Standard (HCS): Not Provided

SARA Section 313 Toxic Chemical List (TCL): Not Provided

Clean Water Act CWA – Priority Pollutants: Not Provided

STATE REGULATIONS: California Proposition 65: Not Provided

INTERNATIONAL REGULATIONS: Canada: Listed in DSL

Not Provided

SECTION XVI OTHER INFORMATION

-THIS PRODUCT IS FOR INDUSTRIAL AND LABORATORY USE ONLY.
-Do not store in open, unlabeled or mislabeled containers.
-Store in cool, dry place with adequate ventilation.
-Keep away from flames and high temperatures.
-For personal hygiene protection, we recommend that employees wash thoroughly after handling product.
Always wash up before eating, smoking, and using toilet facilities.
-Keep out of reach of children.

-HMIS rating HEALTH - 3 FLAMMABILITY - 0 REACTIVITY – 1

DISCLAIMER OF LIABILITY

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