



**QUICK IDENTIFIER**  
(as used in label and list)  
295 Red Fluid

# 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**

1-800-424-9300 (US), 1-703-527-3887 (International)

**ENGINEERING CONTROL DATA**

MSDS - A35803-1, Rev. L, EO 6445

Drawing - A35324

**DATE PREPARED**

7-07-08

## 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.

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## SECTION III COMPOSITION/INFORMATION ON INGREDIENTS

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**1.Chemical Name:** Tetrabromoethane                      **Common Name:** Acetylene Tetrabromide  
**CAS No:** 79-27-6  
**OSHA/PEL:** 14mg/m<sup>3</sup>  
**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

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## SECTION IV FIRST AID MEASURES

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### 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.

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## SECTION V FIRE FIGHTING MEASURES

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### FLASH POINT

Non - Flashing

### METHOD USED

### FLAMMABLE LIMITS (in Air % by Vol.)

### LEL    UEL

Non - Flammable

### AUTO-IGNITION TEMPERATURE

335°C

### EXTINGUISHER MEDIA

Water, CO<sub>2</sub>, 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.

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## SECTION VI ACCIDENTAL RELEASE MEASURES

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### **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.

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## SECTION VII HANDLING AND STORAGE

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**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.

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## SECTION VIII EXPOSURE CONTROLS/PERSONAL PROTECTION

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### **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.

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## SECTION IX PHYSICAL & CHEMICAL PROPERTIES

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### BOILING POINT

475°F 245°C

### VAPOR DENSITY (AIR=1)

12

### EVAPORATION RATE (BuAc=1)

>100

### APPEARANCE & ODOR

Red color - sweet, pungent odor

### SPECIFIC GRAVITY (H<sub>2</sub>O=1)

2.95 @ 25.8°C

### SOLUBILITY IN WATER

0.062g/100g @20° C

### MELTING POINT

1°C

### VAPOR PRESSURE (20°C)

0.02 mmHg

### REACTIVITY IN WATER

None

### pH

NA

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## SECTION X STABILITY AND REACTIVITY

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### 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

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## SECTION XI TOXICOLOGICAL INFORMATION

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### Chemical Listed as Carcinogen or Potential Carcinogen

#### National Toxicology Program

NA

#### I.A.R.C. Monographs

NA

#### OSHA

NA

LC50 (rat) 549mg/m<sup>3</sup>/4 hour

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## SECTION XII ECOLOGICAL INFORMATION

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TBE is classified as a marine pollutant.

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## SECTION XIII DISPOSAL CONSIDERATIONS

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

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## SECTION XIV TRANSPORT INFORMATION

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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

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## SECTION XV REGULATORY INFORMATION

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**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

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## SECTION XVI OTHER INFORMATION

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-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

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