


Material Safety Data Sheet

| NFPA | | HMIS | |
|---|-------------|-----------------|-------------|
|  | | | |
| Issuing Date | 10-Feb-2010 | Revision Date | 08-Jun-2012 |
| | | Revision Number | 7 |

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name MC MX 794-6
Product Code MC MX 794-6
UN-No 1993
Recommended Use Corrosion Inhibitor.
Manufactured by: Multi-Chem Group LLC
2905 Southwest Blvd
San Angelo, TX 76904
Phone: 1 325 223 6200

Emergency Telephone Number 1 800 535 5053
+1 352 323 3500 (Outside United States)
613 996 6666 or *666 on a cell phone (Inside Canada Only)

2. HAZARDS IDENTIFICATION

| Emergency Overview | | | |
|--|---|----------------|--------|
| Flammable Liquid | | | |
| Irritating to eyes, respiratory system and skin | | | |
| Harmful by inhalation, in contact with skin and if swallowed | | | |
| Contains a known or suspected reproductive toxin | | | |
| Appearance | Clear to Slightly Hazy, Light Amber to Dark Amber | Physical State | Liquid |
| | | Odor | Mild |

Potential Health Effects

Principle Routes of Exposure Eye contact, Skin contact, Inhalation, Ingestion.

Acute Toxicity

Eyes Irritating to eyes.
Skin Irritating to skin. Prolonged skin contact may defat the skin and produce dermatitis. May be absorbed through the skin in harmful amounts.

| | |
|-------------------|--|
| Inhalation | Inhalation of vapors in high concentration may cause irritation of respiratory system. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. |
| Ingestion | Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause additional affects as listed under "Inhalation". May be fatal or cause blindness if swallowed. |

Chronic Effects

Prolonged exposure may cause chronic effects Contains a known or suspected reproductive hazard

Aggravated Medical Conditions Skin disorders. Liver disorders. Kidney disorders. Neurological disorders. Preexisting eye disorders. Respiratory disorders.

Environmental Hazard See Section 12 for additional Ecological Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula Mixture

| Chemical Name | CAS-No | Weight % |
|--|------------|----------|
| Methyl alcohol | 67-56-1 | 30-60 |
| Petroleum naphtha, light aromatic | 64742-95-6 | 10-30 |
| Pseudocumene | 95-63-6 | 5-10 |
| 2-Butoxyethanol | 111-76-2 | 5-10 |
| Diethylamine | 109-89-7 | 1-5 |
| Maleic anhydride, compound with Tall-oil fatty acids | 68139-89-9 | 1-5 |
| Fatty acids, tall-oil, reaction products with diethylenetriamine | 61790-69-0 | 1-5 |
| Benzenesulfonic acid, C10-16-alkyl derivatives | 68584-22-5 | 1-5 |
| Cocoalkonium chloride | 61789-71-7 | 1-5 |

4. FIRST AID MEASURES

| | |
|---------------------------|---|
| General Advice | Get medical attention immediately if symptoms occur. |
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek immediate medical attention/advice. |
| Skin Contact | Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention immediately if symptoms occur. |
| Inhalation | Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Seek immediate medical attention/advice. |
| Ingestion | Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Following ingestion, onset of symptoms may be delayed by 12-24 hours. Admission to hospital should be the first priority even if symptoms are absent. |
| Notes to Physician | Gastric lavage or emesis should be performed as soon as possible to minimize absorption, and is recommended within 4 hours of ingestion. Ethanol may be given intravenously to prevent build up of toxic metabolites and increase hepatic elimination of methanol. Intravenous folic acid may also assist in reducing the toxic effects of methanol metabolites. Visual disturbances and metabolic acidosis may occur and dialysis, preferably hemodialysis may be employed to treat these complications. |

5. FIRE-FIGHTING MEASURES

Flammable Properties Flammable liquid.

| | |
|----------------------------------|---|
| Flash Point | 8.9 °C / 48 °F |
| Suitable Extinguishing Media | Water spray. Carbon dioxide (CO ₂). Foam. Dry powder. Liquid may float on top of water and re-ignite. |
| Unsuitable Extinguishing Media | Do not use a solid water stream as it may scatter and spread fire. |
| Hazardous Combustion Products | Carbon oxides, Nitrogen oxides (NOx), Ammonia, Sulfur oxides, Hydrogen chloride. |
| Explosion Data | |
| Sensitivity to Mechanical Impact | Not sensitive |
| Sensitivity to Static Discharge | May be ignited by heat, sparks or flames. |

Specific Hazards Arising from the Chemical

Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks). Vapors may travel to source of ignition and flash back.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

| | | | | | | | | |
|-------------|----------------------|----------|---------------------|----------|------------------|----------|--------------------------------------|----------|
| NFPA | Health Hazard | 2 | Flammability | 3 | Stability | 1 | Physical and Chemical Hazards | - |
|-------------|----------------------|----------|---------------------|----------|------------------|----------|--------------------------------------|----------|

6. ACCIDENTAL RELEASE MEASURES

| | |
|--------------------------------|---|
| Personal Precautions | Avoid contact with skin, eyes and clothing. Use personal protective equipment. Ensure adequate ventilation. Take precautionary measures against static discharges. Remove all sources of ignition. |
| Methods for Containment | Dike far ahead of liquid spill for later disposal. Prevent further leakage or spillage if safe to do so. |
| Methods for Cleaning Up | Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Ground and bond containers when transferring material. Use clean non-sparking tools to collect absorbed material. |

7. HANDLING AND STORAGE

| | |
|-----------------|---|
| Handling | Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Take precautionary measures against static discharges. Ensure adequate ventilation. Remove all sources of ignition. |
| Storage | Keep containers tightly closed in a cool, well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---|--------------------------------|--|--|
| Methyl alcohol 67-56-1 | = 250 ppm STEL TWA: 200 ppm | TWA: 260 mg/m ³ TWA: 200 ppm | IDLH: 6000 ppm TWA: 260 mg/m ³ TWA: 200 ppm STEL: 325 mg/m ³ STEL: 250 ppm |
| Petroleum naphtha, light aromatic 64742-95-6 | | | |

| | | | |
|---|-----------------------------|--|---|
| Pseudocumene 95-63-6 | TWA: 25 ppm | | TWA: 125 mg/m ³ TWA: 25 ppm |
| 2-Butoxyethanol 111-76-2 | TWA: 20 ppm | TWA: 240 mg/m ³ TWA: 50 ppm (vacated) TWA: 120 mg/m ³ (vacated) TWA: 25 ppm Skin | IDLH: 700 ppm TWA: 24 mg/m ³ TWA: 5 ppm |
| Diethylamine 109-89-7 | = 15 ppm STEL TWA: 5 ppm | TWA: 25 ppm TWA: 75 mg/m ³ (vacated) TWA: 10 ppm (vacated) TWA: 30 mg/m ³ (vacated) STEL: 25 ppm (vacated) STEL: 75 mg/m ³ | IDLH: 200 ppm TWA: 10 ppm TWA: 30 mg/m ³ STEL: 25 ppm STEL: 75 mg/m ³ |
| Maleic anhydride, compound with Tall-oil fatty acids 68139-89-9 | | | |
| Fatty acids, tall-oil, reaction products with diethylenetriamine 61790-69-0 | | | |
| Benzenesulfonic acid, C10-16-alkyl derivatives 68584-22-5 | | | |
| Cocoalkonium chloride 61789-71-7 | | | |

| Chemical Name | Alberta | British Columbia | Saskatchewan |
|---|--|-------------------------------|--|
| Methyl alcohol 67-56-1 | STEL: 328 mg/m ³ STEL: 250 ppm TWA: 262 mg/m ³ TWA: 200 ppm | STEL: 250 ppm TWA: 200 ppm | TWA: 262 mg/m ³ TWA: 200 ppm STEL: 328 mg/m ³ STEL: 250 ppm |
| Petroleum naphtha, light aromatic 64742-95-6 | | | |
| Pseudocumene 95-63-6 | TWA: 25 ppm TWA: 123 mg/m ³ | TWA: 25 ppm | |
| 2-Butoxyethanol 111-76-2 | TWA: 20 ppm TWA: 97 mg/m ³ | TWA: 20 ppm | TWA: 120 mg/m ³ TWA: 25 ppm STEL: 150 mg/m ³ STEL: 30 ppm |
| Diethylamine 109-89-7 | STEL: 15 ppm STEL: 45 mg/m ³ TWA: 15 mg/m ³ TWA: 5 ppm | STEL: 15 ppm TWA: 5 ppm | TWA: 15 mg/m ³ TWA: 5 ppm STEL: 45 mg/m ³ STEL: 15 ppm |
| Maleic anhydride, compound with Tall-oil fatty acids 68139-89-9 | | | |
| Fatty acids, tall-oil, reaction products with diethylenetriamine 61790-69-0 | | | |
| Benzenesulfonic acid, C10-16-alkyl derivatives 68584-22-5 | | | |
| Cocoalkonium chloride 61789-71-7 | | | |

Engineering Measures

Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment**Eye/Face Protection**Safety glasses with side-shields. If splashes are likely to occur, wear:. Goggles.
Face-shield.**Skin and Body Protection**

Wear protective gloves/clothing.

Respiratory Protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations

Hygiene Measures

Remove and wash contaminated clothing before re-use. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|----------------------------|--|-----------------------------------|-------------------|
| Appearance | Clear to Slightly Hazy Light Amber to Dark Amber | Odor | Mild |
| Physical State | Liquid | pH | No data available |
| Flash Point | 8.9 °C / 48 °F | Autoignition Temperature | No data available |
| Boiling Point/Range | No data available | Pour Point | -40 °C / -40 °F |
| | | Flammability Limits in Air | No data available |
| Explosion Limits | No data available | | |
| Specific Gravity | 0.8296-0.8636 | Solubility | Oil soluble |
| Evaporation Rate | No data available | Vapor Pressure | No data available |
| Vapor Density | No data available | Density | 6.92-7.20 lbs/gal |
| Viscosity | No data available | | |

10. STABILITY AND REACTIVITY

| | |
|---|--|
| Stability | Stable under recommended storage conditions |
| Incompatible Products | Strong oxidizing agents. Strong acids. Strong bases. |
| Conditions to Avoid | Heat, flames and sparks. |
| Hazardous Decomposition Products | Carbon oxides. Nitrogen oxides (NOx). Ammonia. Hydrogen chloride. Sulfur oxides. |
| Hazardous Polymerization | None under normal processing. |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

| | |
|----------------------------|--|
| Product Information | The product itself has not been tested. |
| Irritation | Irritating to eyes, respiratory system and skin. |

Component Information

| Chemical Name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|--|------------------|--|--|
| Methyl alcohol | 5628 mg/kg (Rat) | 15800 mg/kg (Rabbit) | 64000 ppm (Rat) 4 h 83.2 mg/L (Rat) 4 h |
| Petroleum naphtha, light aromatic | 8400 mg/kg (Rat) | 2000 mg/kg (Rabbit) | 3400 ppm (Rat) 4 h 5.2 mg/L (Rat) 4 h |
| Pseudocumene | 3400 mg/kg (Rat) | 3160 mg/kg (Rabbit) | 18 g/m ³ (Rat) 4 h |
| 2-Butoxyethanol | 470 mg/kg (Rat) | 220 mg/kg (Rabbit) 2270 mg/kg (Rat) | 2.21 mg/L (Rat) 4 h 450 ppm (Rat) 4 h |
| Diethylamine | 540 mg/kg (Rat) | 582 mg/kg (Rabbit) | 12.1 mg/L (Rat) 4 h 4000 ppm (Rat) 4 h |
| Benzenesulfonic acid, C10-16-alkyl derivatives | 530 mg/kg (Rat) | 530 mg/kg (Rat) | |

Chronic Toxicity

| | |
|-------------------------|--|
| Chronic Toxicity | Prolonged exposure may cause chronic effects. Contains a known or suspected reproductive hazard. |
|-------------------------|--|

| | |
|------------------------|--|
| Carcinogenicity | Limited evidence of a carcinogenic effect. |
|------------------------|--|

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|-----------------|-------|------|-----|------|
| 2-Butoxyethanol | A3 | | | |

| | |
|------------------------------|--|
| Reproductive Toxicity | Contains a known or suspected reproductive toxin. |
| Teratogenic Effects | May cause harm to the unborn child |
| Target Organ Effects | Liver, Kidney, Respiratory system, Eyes, Skin, Central nervous system (CNS). |

12. ECOLOGICAL INFORMATION

Ecotoxicity

The environmental impact of this product has not been fully investigated

| Chemical Name | Toxicity to Algae | Toxicity to Fish | Microtox | Daphnia Magna (Water Flea) |
|--|---------------------|--|--|---|
| Methyl alcohol | | LC50= 13200 mg/L Oncorhynchus mykiss 96 h LC50= 28100 mg/L Pimephales promelas 96 h | EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min | |
| Petroleum naphtha, light aromatic | | LC50= 9.22 mg/L Oncorhynchus mykiss 96 h | | EC50 = 6.14 mg/L 48 h |
| Pseudocumene | | LC50= 7.72 mg/L Pimephales promelas 96 h | | EC50 = 6.14 mg/L 48 h |
| 2-Butoxyethanol | | LC50= 1490 mg/L Lepomis macrochirus 96 h | | LC50 1698 - 1940 mg/L 24 h EC50 = 1720 mg/L 24 h |
| Diethylamine | EC50 = 20 mg/L 96 h | LC50= 130 mg/L Poecilia reticulata 96 h LC50= 25 mg/L Oncorhynchus mykiss 96 h LC50= 855 mg/L Pimephales promelas 96 h | EC50 = 21.8 mg/L 15 min EC50 = 24.8 mg/L 30 min EC50 = 27.2 mg/L 15 min EC50 = 35.0 mg/L 5 min EC50 = 47 mg/L 17 h | EC50 = 100 mg/L 48 h EC50 = 164 mg/L 24 h |
| Benzenesulfonic acid, C10-16-alkyl derivatives | | LC50= 3 mg/L Oncorhynchus mykiss 96 h | EC50 = 5 mg/L 6 h | EC50 = 2.9 mg/L 48 h |

| Chemical Name | Log Pow |
|--|--------------|
| Methyl alcohol | = -0.77 |
| Pseudocumene | = 3.63 |
| 2-Butoxyethanol | = 0.81 25 °C |
| Diethylamine | = 0.58 |
| Benzenesulfonic acid, C10-16-alkyl derivatives | = 2 23 °C |

13. DISPOSAL CONSIDERATIONS

| | |
|-------------------------------|--|
| Waste Disposal Method | Dispose of in accordance with local regulations. |
| Contaminated Packaging | Dispose of in accordance with local regulations. |

This product contains one or more substances that are listed with the State of California as a hazardous waste.

| Chemical Name | California Hazardous Waste Status |
|----------------|-----------------------------------|
| Methyl alcohol | Toxic; Ignitable |
| Pseudocumene | Toxic |
| Diethylamine | Toxic; Ignitable |

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name Flammable Liquids, N.O.S. (Contains Methanol and Diethylamine)
Hazard Class 3
UN-No 1993
Packing Group II
ERG Code 128

IATA

UN-No 1993
Proper Shipping Name Flammable Liquids, N.O.S. (Contains Methanol and Diethylamine)
Hazard Class 3
Packing Group II

IMDG/IMO

Proper Shipping Name Flammable Liquids, N.O.S. (Contains Methanol and Diethylamine)
Hazard Class 3
UN-No 1993
Packing Group II

TDG

Proper Shipping Name Flammable Liquids, N.O.S. (Contains Methanol)
Hazard Class 3
UN-No 1993
Packing Group II

| |
|-----------------------------------|
| 15. REGULATORY INFORMATION |
|-----------------------------------|

International Inventories

| Component | TSCA | DSL | EINECS/ELINCS | ENCS | IECSC | KECL | PICCS | AICS |
|--|---------|-----|---------------|-------------|-------|----------|-------|------|
| Methyl alcohol 67-56-1 (30-60) | Present | X | X | 2-201 | X | KE-23193 | X | X |
| Petroleum naphtha, light aromatic 64742-95-6 (10-30) | Present | X | X | - | X | KE-31662 | X | X |
| Pseudocumene 95-63-6 (5-10) | Present | X | X | 3-7; 3-3427 | X | KE-34410 | X | X |
| 2-Butoxyethanol 111-76-2 (5-10) | Present | X | X | 2-407; 7-97 | X | KE-04134 | X | X |
| Diethylamine 109-89-7 (1-5) | Present | X | X | 2-135 | X | KE-13688 | X | X |
| Maleic anhydride, compound with Tall-oil fatty acids 68139-89-9 (1-5) | Present | X | - | 2-2557 | X | KE-22779 | - | X |
| Fatty acids, tall-oil, reaction products with diethylenetriamine 61790-69-0 (1-5) | Present | X | X | - | X | KE-32788 | X | X |
| Benzenesulfonic acid, C10-16-alkyl derivatives 68584-22-5 (1-5) | Present | X | X | - | X | KE-02595 | X | X |
| Coccolonium chloride 61789-71-7 (1-5) | - | X | X | - | X | KE-30005 | - | X |

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

| Chemical Name | CAS-No | Weight % | SARA 313 - Threshold Values % |
|---------------|--------|----------|-------------------------------|
|---------------|--------|----------|-------------------------------|

| | | | |
|-----------------|----------|-------|-----|
| Methyl alcohol | 67-56-1 | 30-60 | 1.0 |
| Pseudocumene | 95-63-6 | 5-10 | 1.0 |
| 2-Butoxyethanol | 111-76-2 | 5-10 | 1.0 |

SARA 311/312 Hazard Categories

| | |
|-----------------------------------|-----|
| Acute Health Hazard | Yes |
| Chronic Health Hazard | Yes |
| Fire Hazard | Yes |
| Sudden Release of Pressure Hazard | No |
| Reactive Hazard | No |

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

| Component | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|----------------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Diethylamine 109-89-7 (1-5) | 100 lb | | | X |

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act..

| Chemical Name | CAS-No | Weight % | HAPS data | VOC Chemicals | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|-----------------|----------|----------|---|---------------|-------------------------|-------------------------|
| Methyl alcohol | 67-56-1 | 30-60 | Present | Group IV | | |
| 2-Butoxyethanol | 111-76-2 | 5-10 | Present (includes mono- and di-ethers of ethylene glycol, diethylene glycol, and triethylene glycol, except Ethylene glycol monobutyl ether [EGBE]. See 40 CFR 63.62 for Redefinition of glycol ethers listed as hazardous air pollutants and 40 CFR 63.63 fo | Group I | | |
| Diethylamine | 109-89-7 | 1-5 | | Group IV | | |

CERCLA

| Chemical Name | Hazardous Substances RQs | Extremely Hazardous Substances RQs |
|----------------|--------------------------|------------------------------------|
| Methyl alcohol | 5000 lb | |
| Diethylamine | 100 lb | |

U.S. State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals

| Chemical Name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-----------------|---------------|------------|--------------|----------|--------------|
| Methyl alcohol | X | X | X | X | X |
| Pseudocumene | X | X | X | X | |
| 2-Butoxyethanol | X | X | X | X | X |
| Diethylamine | X | X | X | | X |

International Regulations**Mexico - Grade**

No information available.

| Chemical Name | Carcinogen Status | Exposure Limits |
|---------------|-------------------|-----------------|
|---------------|-------------------|-----------------|

| | | |
|-----------------|--|--|
| Methyl alcohol | | Mexico: TWA= 260 mg/m ³ Mexico: TWA= 200 ppm |
| Pseudocumene | | Mexico: TWA= 125 mg/m ³ Mexico: TWA= 25 ppm |
| 2-Butoxyethanol | | Mexico: TWA= 120 mg/m ³ Mexico: TWA= 26 ppm |
| Diethylamine | | Mexico: TWA= 10 ppm Mexico: TWA= 30 mg/m ³ |

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

B2 Flammable liquid

D2A Very toxic materials

D2B Toxic materials



| Chemical Name | NPRI |
|-----------------|------|
| Methyl alcohol | X |
| Pseudocumene | X |
| 2-Butoxyethanol | X |

16. OTHER INFORMATION

Prepared By Amanda Burwell

Issuing Date 2/10/2010

Revision Date 08-Jun-2012

Reason for Revision (M)SDS sections updated. 1. 2. 3. 9. 10. 11. 14. 15. 16.

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS