SECTION 1 - PRODUCT IDENTIFICATION

Trade name : CONCRETE SURFACE RETARDER F
Product code : 080A 55
COMPANY : Euclid Chemical Company
19218 Redwood Road
Cleveland, OH  44110
Telephone : 1-800-321-7628
Emergency Phone : U.S. only: 1-800-424-9300
International Users Call Collect: 1-703-527-3887
Product use : Coating

SECTION 2 - HAZARDS IDENTIFICATION

Emergency Overview
Tan. Liquid. May cause moderate irritation to the respiratory system. May cause nausea, headaches, and dizziness. May cause drowsiness, weakness, and fatigue. Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.

Acute Potential Health Effects/ Routes of Entry
Inhalation : May cause moderate irritation to the respiratory system. May cause nausea, headaches, and dizziness. May cause drowsiness, weakness, and fatigue.
Eyes : Vapor and/or mist may cause eye irritation. Direct contact may cause temporary redness and discomfort.
Ingestion : May cause irritation to the mouth, throat and stomach. May cause gastrointestinal irritation, nausea, and vomiting.
Skin : May cause moderate irritation.

Aggravated Medical Conditions
Pre-existing eye, skin, liver, kidney, and respiratory disorders may be aggravated by exposure.

Chronic Health Effects
Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Prolonged or repeated exposure to xylene may cause defatting, drying, and irritation of the skin, dermatitis, central nervous system (CNS) effects, heart muscle sensitization and arrhythmia, hearing loss, and brain, liver, kidney damage. Xylene overexposure may affect fetal development. The International Agency for Research on Cancer (IARC) has evaluated ethylbenzene and classified it as a possible human carcinogen (Group 2B) based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans. Fillers are encapsulated and not expected to be released from product under normal conditions of use.

Target Organs : Skin, Eye, Lung, Liver, Kidney, Nerve, Reproductive
SECTION 3 - PRODUCT COMPOSITION

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>15.0 - 40.0</td>
</tr>
<tr>
<td>Aromatic petroleum distillates</td>
<td>64742-95-6</td>
<td>15.0 - 40.0</td>
</tr>
<tr>
<td>Sodium glucoheptonate</td>
<td>31138-65-5</td>
<td>10.0 - 30.0</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>95-63-6</td>
<td>10.0 - 30.0</td>
</tr>
<tr>
<td>Alkyd resin</td>
<td>NJ TSRN# 51721300-5458P</td>
<td>7.0 - 13.0</td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>7.0 - 13.0</td>
</tr>
<tr>
<td>1,3,5-Trimethylbenzene</td>
<td>108-67-8</td>
<td>1.0 - 5.0</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>1.0 - 5.0</td>
</tr>
</tbody>
</table>

SECTION 4 - FIRST AID MEASURES

Get immediate medical attention for any significant overexposure.

Inhalation : Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.

Eye contact : Flush with water for at least 15 minutes while holding eye lids apart. Get medical attention immediately.

Skin contact : Wash area of contact thoroughly with hand cleaner followed by soap and water. If irritation, rash or other disorders develop, get medical attention immediately.

Ingestion : Do not induce vomiting unless advised by a physician. Call nearest Poison Control Center or Physician immediately.

SECTION 5 - FIRE FIGHTING MEASURES

Flash point : 110 °F, 43 °C
Method : Setashock Closed Cup
Lower explosion limit : 1 %(V) Solvent
Upper explosion limit : 7 %(V) Solvent
Autoignition temperature : Not available.
Extinguishing media : If water fog is ineffective, use carbon dioxide, dry chemical or foam.
Protective equipment for firefighters : Use accepted fire fighting techniques. Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). Water may be used to cool containers to minimize pressure build-up.
Fire and explosion conditions : Vapor concentrations in enclosed areas may ignite explosively. Product may ignite if heated in excess of its flash point. Vapors may travel to sources of ignition and flashback. Closed container may burst when exposed to extreme heat. Empty containers may contain ignitable vapors.
SECTION 6 - ACCIDENTAL RELEASE MEASURES

Use appropriate protective equipment. Avoid contact with material. Remove sources of ignition immediately. Stop flow of material if safe to do so. Contain spill and keep out of water courses. Ventilate area.

SECTION 7 - HANDLING AND STORAGE

Prevent inhalation of vapor, ingestion, and contact with skin, eyes, and clothing. Keep container closed when not in use. Precautions also apply to emptied containers. To prevent generation of static discharges, use bonding/grounding connection when pouring liquid. Extinguish all ignition sources including pilot lights, non-explosion proof motors and electrical equipment until vapors dissipate. Personal protective equipment must be worn during maintenance or repair of contaminated mixer, reactor, or other equipment. Keep container closed when not in use. Vapor may migrate to sources of ignition. Do not smoke, weld, generate sparks, or use flame near container. Store in sealed containers in a cool, dry, ventilated warehouse location.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection equipment
Respiratory protection: Wear appropriate, properly fitted NIOSH/MSHA approved organic vapor or supplied air respirator when airborne contaminant level(s) are expected to exceed exposure limits indicated on the MSDS. Follow manufacturer's directions for respirator use.

Hand protection: Use suitable impervious nitrile or neoprene gloves and protective apparel to reduce exposure.

Eye protection: Wear appropriate eye protection. Wear chemical safety goggles and/or face shield to prevent eye contact. Do not wear contact lenses. Do not touch eyes with contaminated body parts or materials. Have eye washing facilities readily available.

Protective measures: Use professional judgment in the selection, care, and use. Inspect and replace equipment at regular intervals.

Engineering measures: Use only in well ventilated areas. Provide maximum ventilation in enclosed areas. Use local exhaust when the general ventilation is inadequate.

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Regulation</th>
<th>Limit</th>
<th>Form</th>
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</thead>
<tbody>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>95-63-6</td>
<td>ACGIH TWA:</td>
<td>25 ppm</td>
<td></td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>ACGIH TWA:</td>
<td>100 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH STEL:</td>
<td>150 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL:</td>
<td>435 mg/m3</td>
<td></td>
</tr>
<tr>
<td>1,3,5-Trimethylbenzene</td>
<td>108-67-8</td>
<td>ACGIH TWA:</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH STEL:</td>
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<tr>
<td></td>
<td></td>
<td>OSHA PEL:</td>
<td>435 mg/m3</td>
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</tr>
</tbody>
</table>
SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid  
Color : Tan  
Odor : Aromatic Solvent  
pH : Not available.  
Vapour pressure : 4.8 hPa  
Vapor density : Heavier than air  
Melting point/range : Not available.  
Freezing point : Not available.  
Boiling point/range : 320 °F, 160 °C  
Water solubility : Negligible  
Specific Gravity : 1.06  
% Volatile Weight : 72.6 %

SECTION 10 - REACTIVITY / STABILITY

Substances to avoid : Oxidizing agents. Strong acids. Strong bases.  
Stability : Stable under normal conditions. Avoid welding arcs, flames or other high temperature sources.  
Hazardous polymerization : Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Xylene, CAS-No.: 1330-20-7  
Acute oral toxicity (LD-50 oral)  4,300 mg/kg (Rat) 1,590 mg/kg (Mouse) 6,670 mg/kg (Rat) 3,523 - 8,600 mg/kg (Rat) 5,627 mg/kg (Mouse)  
Acute inhalation toxicity (LC-50)  6,350 mg/l for 4 h (Rat) 3,907 mg/l for 6 h (Mouse) 8,000 mg/l for 4 h (Rat)

Ethylbenzene, CAS-No.: 100-41-4  
Acute oral toxicity (LD-50 oral)  5,460 mg/kg (Rat) 3,500 mg/kg (Rat)  
Acute dermal toxicity (LD-50 dermal)  17,800 mg/kg (Rabbit)
SECTION 12 - ECOLOGICAL INFORMATION

No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA Class : D001: Reportable Quantity = 100 lbs. (Characteristic of ignitability)
This classification applies only to the material as it was originally produced.

Disposal Method : Subject to hazardous waste treatment, storage, and disposal requirements under RCRA. Recycle or incinerate waste at EPA approved facility or dispose of in compliance with federal, state and local regulations.

SECTION 14 - TRANSPORTATION / SHIPPING DATA

CFR / DOT:

Not Regulated

TDG:

Not Regulated

IMDG:

UN1993, FLAMMABLE LIQUID, N.O.S. (Petroleum Distillates), 3, PG III

Further Information:
The above shipping description may not be accurate for all container sizes and all modes of transportation. Please refer to Bill of Lading.

SECTION 15 - REGULATORY INFORMATION

North American Inventories:
All components are listed or exempt from the TSCA inventory.
This product or its components are listed on, or exempt from the Canadian Domestic Substances List.

U.S. Federal Regulations:
SARA 313 Components : Xylene 1330-20-7
Ethylbenzene 100-41-4

SARA 311/312 Hazards : Acute Health Hazard
Fire Hazard

OSHA Hazardous Components : 1,2,4-Trimethylbenzene 95-63-6
**Material Safety Data Sheet**

**CONCRETE SURFACE RETARDER F**

Version 5.0  Print Date 10/24/2014

**REVISION DATE: 10/22/2014**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
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<tr>
<td>Xylene</td>
<td>1330-20-7</td>
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</tr>
</tbody>
</table>

**OSHA Status:** Considered hazardous based on the following criteria:

- **Irritant**
- **Flammability:** II

**Regulatory VOC (less water and exempt solvent):**

- 681 g/l

**VOC Method 310:**

- 46.32%

**U.S. State Regulations:**

- **MASS RTK Components:**
  - Xylene 1330-20-7
  - Ethylbenzene 100-41-4

- **Penn RTK Components:**
  - Xylene 1330-20-7
  - Water 7732-18-5
  - Sodium glucoheptonate 31138-65-5
  - Alkyd resin
  - Ethylbenzene 100-41-4

- **NJ RTK Components:**
  - Xylene 1330-20-7
  - Water 7732-18-5
  - Sodium glucoheptonate 31138-65-5
  - Alkyd resin
  - Ethylbenzene 100-41-4

**Components under California Proposition 65:**

**WARNING!** Contains chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm.

**SECTION 16 - OTHER INFORMATION**

**HMIS Rating:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>2</td>
</tr>
<tr>
<td>Flammability</td>
<td>2</td>
</tr>
<tr>
<td>Reactivity</td>
<td>1</td>
</tr>
<tr>
<td>PPE</td>
<td></td>
</tr>
</tbody>
</table>

- 0 = Minimum
- 1 = Slight
- 2 = Moderate
- 3 = Serious
- 4 = Severe

**Further information:**

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

**Prepared by:** Rich Mikol

**Legend**