Material Safety Data Sheet

Section 1: Product & Company Identification

Product Name: MARYKATE® On and Off Hull & Bottom Cleaner

Product Number (s): MK2032, MK20128, MK20550

Product Use: Cleaner for fiberglass hulls

Manufacturer / Supplier Contact Information:
In United States: CRC Industries, Inc.
885 Louis Drive
Warminster, PA 18974
www.crcindustries.com
1-215-674-4300 (General)
(800) 521-3168 (Technical)
(800) 272-4620 (Customer Service)

In Canada: CRC Canada Co.
2-1246 Lorimar Drive
Mississauga, Ontario L5S 1R2
www.crc-canada.ca
1-905-670-2291

In Mexico: CRC Industries Mexico
Av. Benito Juárez 4055 G
Colonia Orquídea
San Luis Potosí, SLP CP 78394
www.crc-mexico.com
52-444-824-1666

24-Hr Emergency – CHEMTREC: (800) 424-9300 or (703) 527-3887

Section 2: Hazards Identification

Emergency Overview

DANGER: Corrosive to Skin & Eyes. May Cause Respiratory Tract Burns. Vapor Harmful.
Appearance & Odor: White emulsion, strong acid odor

Potential Health Effects:

ACUTE EFFECTS:
EYE: May cause severe chemical burns to eyes. May cause permanent eye damage if not promptly flushed with water.

SKIN: May cause severe chemical burns to skin. Severity of burns will depend on quantity and duration of exposure.

INHALATION: May cause irritation and burning to nose and throat.

INGESTION: May cause severe chemical burns and may possibly be fatal if swallowed.

CHRONIC EFFECTS: Unknown

TARGET ORGANS: Unknown

Medical Conditions Aggravated by Exposure: May aggravate existing respiratory conditions.

See Section 11 for toxicology and carcinogenicity information on product ingredients.
**Section 3: Composition/Information on Ingredients**

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAS NUMBER</th>
<th>% by Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>60 – 65</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>7647-01-0</td>
<td>20 – 25</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td>7664-38-2</td>
<td>5 – 10</td>
</tr>
<tr>
<td>Ethoxylated alcohols</td>
<td>84133-50-6</td>
<td>2 – 8</td>
</tr>
<tr>
<td></td>
<td>68439-46-3</td>
<td></td>
</tr>
<tr>
<td>Oxalic acid, dihydrate</td>
<td>6153-56-6</td>
<td>1 – 5</td>
</tr>
</tbody>
</table>

**Section 4: First Aid Measures**

**Eye Contact:** Immediately flush with plenty of water for 15 minutes. Get medical attention. Prompt action may save sight.

**Skin Contact:** Remove contaminated clothing and wash affected area with soap and water. Call a physician if irritation persists. Wash contaminated clothing prior to re-use.

**Inhalation:** Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call a physician.

**Ingestion:** Do not induce vomiting. Immediately give milk, egg white, antacid, gelatin, or, if none of these are available, give water. Get immediate medical attention.

**Note to Physicians:** Treat symptomatically.

**Section 5: Fire-Fighting Measures**

**Flammable Properties:** As defined by OSHA, this product is nonflammable.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point</td>
<td>None</td>
</tr>
<tr>
<td>Upper Explosive Limit</td>
<td>None</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>ND</td>
</tr>
<tr>
<td>Lower Explosive Limit</td>
<td>None</td>
</tr>
</tbody>
</table>

**Fire and Explosion Data:**

**Suitable Extinguishing Media:** This material will not burn. Use media as appropriate for surrounding fire.

**Products of Combustion:** Heated material may produce corrosive and irritating fumes.

**Explosion Hazards:** Containers, when exposed to heat from fire, may build pressure and rupture.

**Protection of Fire-Fighters:** Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against suffocation and possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

**Section 6: Accidental Release Measures**

**Personal Precautions:** Use personal protection recommended in Section 8.

**Environmental Precautions:** Take precautions to prevent contamination of ground and surface waters. Do not flush undiluted product into sewers or storm drains.
Methods for Containment & Clean-up: Dike area to contain spill. Ventilate the area with fresh air. If in confined space or limited air circulation area, clean-up workers should wear appropriate respiratory protection. Neutralize spilled material with sodium bicarbonate (baking soda) or sodium carbonate (baking powder, soda ash). Recover or absorb spilled material using an absorbent designed for chemical spills. Place used absorbents into proper waste containers.

Section 7: Handling and Storage

Handling Procedures: Keep containers closed when not in use. Do not mix with other chemical products. Use appropriate personal protective equipment (see Section 8) to prevent skin and eye contact. Avoid breathing vapors. For product use instructions, please see the product label.

Storage Procedures: Store in a cool dry area out of direct sunlight. Containers should be tightly closed while in storage. Do not store near alkaline materials. Keep out of reach of children.

Aerosol Storage Level: NA

Section 8: Exposure Controls/ Personal Protection

Exposure Guidelines:

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>OSHA</th>
<th>ACGIH</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
<td>TWA</td>
</tr>
<tr>
<td>Water</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>5 (c)</td>
<td>NE</td>
<td>2 (c)</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td>1</td>
<td>3 (v)</td>
<td>1</td>
</tr>
<tr>
<td>Ethoxylated alcohols</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Oxalic acid, dihydrate</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
</tbody>
</table>

N.E. – Not Established     (c) – ceiling (s) – skin (v) – vacated

Controls and Protection:

Engineering Controls: Area should have ventilation to provide fresh air. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at the source, preventing dispersion into the general work area. Use mechanical means if necessary to maintain vapor levels below the exposure guidelines. If working in a confined space, follow applicable OSHA regulations.

Respiratory Protection: None required for normal work where adequate ventilation is provided. If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with acid gas cartridge. Air monitoring is needed to determine actual employee exposure levels. Use a self-contained breathing apparatus in confined spaces and for emergencies.

Eye/face Protection: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

Skin Protection: Use protective gloves such as latex or rubber. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.
Product Name: MARYKATE® On and Off Hull & Bottom Cleaner
Product Number(s): MK2032, MK20128, MK20550

Section 9: Physical and Chemical Properties

Physical State: liquid
Color: white
Odor: strong acid odor
Odor Threshold: ND
Specific Gravity: 1.167
Initial Boiling Point: 212°F / 100°C
Freezing Point: ND
Vapor Pressure: ND
Vapor Density: ND (air = 1)
Evaporation Rate: slow
Solubility: completely soluble in water
Coefficient of water/oil distribution: ND
pH: 0.5
Volatile Organic Compounds: wt %: 0, g/L: 0, lbs./gal: 0

Section 10: Stability and Reactivity

Stability: Stable
Conditions to Avoid: None
Incompatible Materials: Will react with many metals, alkalines and organics
Hazardous Decomposition Products: Hydrogen, chlorine, and many others depending on material contracted.
Possibility of Hazardous Reactions: No

Section 11: Toxicological Information

Long-term toxicological studies have not been conducted for this product. The following information is available for components of this product.

Acute Toxicity:

<table>
<thead>
<tr>
<th>Component</th>
<th>Oral LD50 (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>&gt; 90 mL/kg</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>No data</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td>1530 mg/kg</td>
</tr>
<tr>
<td>Ethoxylated alcohols</td>
<td>No data</td>
</tr>
<tr>
<td>Oxalic acid, dihydrate</td>
<td>No data</td>
</tr>
</tbody>
</table>

|                          | Dermal LD50 (rabbit) |
|                          | No data              |

|                          | Inhalation LC50 (rat) |
|                          | No data              |

|                          | No data              |
|                          | No data              |
|                          | No data              |

|                          | No data              |

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**Chronic Toxicity:**

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA Carcinogen</th>
<th>IARC Carcinogen</th>
<th>NTP Carcinogen</th>
<th>Irritant</th>
<th>Sensitizer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Hydrochloric acid</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>E (severe) / S &amp; R (mild)</td>
<td>Unknown</td>
</tr>
<tr>
<td>Phosphoric acid</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>E &amp; S (severe)</td>
<td>No</td>
</tr>
<tr>
<td>Ethoxylated alcohols</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>Oxalic acid, dihydrate</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>E &amp; S (severe)</td>
<td>No</td>
</tr>
</tbody>
</table>

- Reproductive Toxicity: No information available
- Teratogenicity: No information available
- Mutagenicity: No information available
- Synergistic Effects: No information available

**Section 12: Ecological Information**

Ecological studies have not been conducted for this product. The following information is available for components of this product.

- **Ecotoxicity:**
  - phosphoric acid – 96 Hr LC50 mosquito fish: 138 mg/L
  - hydrochloric acid – 48 Hr LC50 bluegill: 3.6 mg/L

- **Persistence / Degradability:** No information available
- **Bioaccumulation / Accumulation:** No information available
- **Mobility in Environment:** No information available

**Section 13: Disposal Considerations**

**Waste Classification:** This product, as packaged (original concentrated form), is a corrosive hazardous waste with a waste code of D002. Dilutions or mixtures of this product should be tested to determine waste classification. (See 40 CFR Part 261.20 – 261.33)

Empty containers may be recycled.

All disposal activities must comply with federal, state, provincial and local regulations. Local regulations may be more stringent than state, provincial or national requirements.

**Section 14: Transport Information**

**US DOT (ground):**
- MK2032
  - UN1760, Corrosive liquid, N.O.S. (Hydrochloric and Phosphoric Acids), 8, PGII, Limited Quantity**
- MK20128, MK20550
  - UN1760, Corrosive liquid, N.O.S. (Hydrochloric and Phosphoric Acids), 8, PGII

**ICAO/IATA (air):**
- ALL #'s
  - Not packaged for shipment by air.

**IMO/IMDG (water):**
- MK2032
  - UN1760, Corrosive liquid, N.O.S. (Hydrochloric and Phosphoric Acids), 8, PGII, Limited Quantity
- MK20128, MK20550
  - UN1760, Corrosive liquid, N.O.S. (Hydrochloric and Phosphoric Acids), 8, PGII
Product Name: MARYKATE® On and Off Hull & Bottom Cleaner
Product Number(s): MK2032, MK20128, MK20550

Special Provisions: **This product can be classified and labeled as 'Consumer Commodity, ORM-D' for domestic ground shipping until January 1, 2014. If shipping as limited quantity by ground, note that shipping papers are not required.**

Section 15: Regulatory Information

U.S. Federal Regulations:

Toxic Substances Control Act (TSCA):
All ingredients are either listed on the TSCA inventory or are exempt.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):
Reportable Quantities (RQ’s) exist for the following ingredients:
- phosphoric acid (5000 lbs)
- hydrochloric acid (5000 lbs)

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Superfund Amendments Reauthorization Act (SARA) Title III:
Section 302 Extremely Hazardous Substances (EHS): None

Section 311/312 Hazard Categories:
- Fire Hazard: No
- Reactive Hazard: No
- Release of Pressure: No
- Acute Health Hazard: Yes
- Chronic Health Hazard: No

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: None

Clean Air Act:
Section 112 Hazardous Air Pollutants (HAPs): Hydrochloric Acid

Occupational Safety and Health Administration:
This product is regulated by the Hazard Communications Standard.

U.S. State Regulations:

California Safe Drinking Water and Toxic Enforcement Act (Prop 65):
This product may contain the following chemicals known to the state of California to cause cancer, birth defects or other reproductive harm: None

Consumer Products VOC Regulations: This product is not regulated.

State Right to Know:
New Jersey: 7647-01-0, 7664-38-2
Pennsylvania: 7647-01-0, 7664-38-2, 6153-56-6
Massachusetts: 7647-01-0, 7664-38-2
Rhode Island: 7647-01-0, 7664-38-2, 6153-56-6

Canadian Regulations:

Controlled Products Regulations:
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.
Product Name: MARYKATE® On and Off Hull & Bottom Cleaner
Product Number(s): MK2032, MK20128, MK20550

WHMIS Hazard Class: D1A, E

Canadian DSL Inventory: All ingredients are either listed on the DSL Inventory or are exempt.

European Union Regulations:

Additional Regulatory Information: None

Section 16: Other Information

<table>
<thead>
<tr>
<th>HMIS® (II)</th>
<th>NFPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health: 3</td>
<td>0</td>
</tr>
<tr>
<td>Flammability: 0</td>
<td>3</td>
</tr>
<tr>
<td>Reactivity: 1</td>
<td>1</td>
</tr>
<tr>
<td>PPE: D</td>
<td></td>
</tr>
</tbody>
</table>

Ratings range from 0 (no hazard) to 4 (severe hazard)

Prepared By: Michelle Rudnick
CRC #: MK2032
Revision Date: 12/11/2012

Changes since last revision: Section 3: Composition

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this MSDS consult your supervisor, a health & safety professional, or CRC Industries.

ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstract Service
CFR: Code of Federal Regulations
DOT: Department of Transportation
DSL: Domestic Substance List
g/L: grams per Liter
HMIS: Hazardous Materials Identification System
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods
IMO: International Maritime Organization
lbs./gal: pounds per gallon
LC: Lethal Concentration
LD: Lethal Dose
NA: Not Applicable
ND: Not Determined
NIOSH: National Institute of Occupational Safety & Health
NFPA: National Fire Protection Association
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PMCC: Pensky-Martens Closed Cup
PPE: Personal Protection Equipment
ppm: Parts per Million
RoHS: Restriction of Hazardous Substances
STEL: Short Term Exposure Limit
TCC: Tag Closed Cup
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Information System