SECTION I - IDENTIFICATION

Product identifier: Kastalon 3580 Bond Part A
Relevant identified uses: Epoxy resin
Restrictions on use: For industrial use only
Supplier: Kastalon Inc.
4100 W. 124th Place
Alsip, IL 60803-1876
Emergency telephone number: 708-389-2210
Telephone for information: 708-389-2210
Website: www.kastalon.com

SECTION II - HAZARD(S) IDENTIFICATION

Emergency Overview
Appearance: liquid
Color: white
Odor: sweet

GHS Classification
Flammable liquids: Category 4
Skin irritation: Category 2
Eye irritation: Category 2A

GHS Label element
Hazard pictograms:

Signal Word: Warning

Precautionary Statements:
Prevention: P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. P264 Wash skin thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response: P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P335 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.Continue rinsing. P308 + P313 If exposed or concerned: Get medical advice/ attention. P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P362 Take off contaminated clothing and wash before reuse. P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Disposal: P501 Dispose of contents/container to an approved waste disposal plant.

Potential Health Effects

Carcinogenicity:

IARC
No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION III - COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Substance / Mixture:</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous ingredients</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epoxy resin</td>
<td>25068-38-6</td>
<td>70 - 90</td>
</tr>
<tr>
<td>butyl 2,3-epoxypropyl ether</td>
<td>2426-08-6</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Silica, amorphous fumed</td>
<td>112945-52-5</td>
<td>1 - 5</td>
</tr>
</tbody>
</table>

SECTION IV - FIRST-AID MEASURES

General advice: Show this material safety data sheet to the doctor in attendance.

Inhalation: Move to fresh air. If symptoms persist, call a physician.

Skin contact: Wash off with soap and water. Get medical attention immediately if irritation develops and persists. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse.

Eye contact: Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.

Ingestion: Do NOT induce vomiting. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. Obtain medical attention.

SECTION V - FIRE-FIGHTING MEASURES

Extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special information: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Recommended firefighting procedures: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION VI - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Refer to protective measures listed in sections 7 and 8.

Environmental precautions: Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.
Methods and materials for containment and cleaning up:

Soak up with inert absorbent material. Shovel into suitable container for disposal.

SECTION VII - HANDLING AND STORAGE

Technical measures: Not applicable
Advice on safe handling: No special precautions required.
Conditions for safe storage: Keep in a dry, cool place.
Materials to avoid: No special restrictions on storage with other products.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment
Respiratory protection: No personal respiratory protective equipment normally required.
Hand protection Material: Nitrile rubber
Eye protection: Safety glasses
Skin and body protection: Remove and wash contaminated clothing before re-use.
Protective measures: Avoid contact with skin.
Hygiene measures: Avoid contact with skin, eyes and clothing.

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>butyl 2,3-epoxypropyl ether</td>
<td>2426-08-6</td>
<td>TWA</td>
<td>3 ppm ACGIH</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>50 ppm OSHA Z-1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>270 mg/m3 OSHA P0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>25 ppm OSHA Z-1</td>
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<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>135 mg/m3 OSHA P0</td>
<td></td>
</tr>
<tr>
<td>Silica, amorphous fumed</td>
<td>112945-52-5</td>
<td>TWA (Dust)</td>
<td>20 Million particles per cubic foot OSHA Z-3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Dust)</td>
<td>80 mg/m3 / %SiO2 OSHA Z-3</td>
<td></td>
</tr>
</tbody>
</table>

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Measurement</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance:</td>
<td>Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower/upper explosive limits:</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor:</td>
<td>Sweet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor threshold:</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor pressure (mm Hg):</td>
<td>Not determined</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Not classified as a flammability hazard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH:</td>
<td>Not applicable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid Content, % by weight:</td>
<td>100</td>
<td>Decomposition temperature:</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility in water:</td>
<td>Not determined</td>
<td>Viscosity:</td>
<td></td>
</tr>
</tbody>
</table>
SECTION X - STABILITY AND REACTIVITY

Chemical stability: The product is chemically stable.
Conditions to avoid: Not applicable
Hazardous decomposition or byproducts: Stable under normal conditions.

SECTION XI - TOXICOLOGICAL INFORMATION

Skin corrosion/irritation: No data available
Serious eye damage/eye irritation: No data available
Respiratory or skin sensitization: No data available
Aspiration toxicity: No data available
STOT-repeated exposure: No data available
STOT-single exposure: No data available

Acute toxicity:
Product:
Acute oral toxicity: Acute toxicity estimate: 3,209 mg/kg
Method: Calculation method
Acute inhalation toxicity: LC50 rat: 24 mg/l
Exposure time: 4 h
Method: Calculation method

Ingredients:
butyl 2,3-epoxypropyl ether:
Acute inhalation toxicity: LC50 rat: 24 mg/l
Exposure time: 4 h

SECTION XII - ECOLOGICAL INFORMATION

Bioaccumulative potential: No data available
Mobility in soil: No data available
Ecotoxicity: No data available
Other adverse effects: No data available
Persistence and degradability: All ingredients are biodegradable.

SECTION XIII - DISPOSAL CONSIDERATIONS

To the best of our knowledge, this product does not meet the definition of hazardous waste under the U.S. EPA Hazardous Waste Regulations 40 CFR 261. Disposal via incineration at an approved facility is recommended, as industry best practice. Consult state, local or provincial authorities for more restrictive requirements.

SECTION XIV – TRANSPORT INFORMATION

Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic): Not regulated
Maritime Transport IMDG/GGV Sea: Not regulated
Air Transport ICAO-TI and IATA-DGR: Not regulated
UN number: None
SECTION XV – REGULATORY INFORMATION

Clean Air Act: This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).

TCSA Status: All ingredients are listed on the TSCA inventory

SARA Title III, Section 302 Extremely Hazardous Substances: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA Title III, Section 313 Toxic Chemical: SARA 313: This product does not contain any chemical components that exceed the reporting threshold.

SARA Title III, Section 311/312 Hazard Categories: Fire Hazard Acute Health Hazard Chronic Health Hazard

SARA Title III, Section 313 Toxic Chemical: SARA 313: This product does not contain any chemical components that exceed the reporting threshold.

US State Regulations California Prop 65: WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

butyl 2,3-epoxypropyl ether 2426-08-6

DSL: All ingredients are listed.

Reach: Not in compliance with the inventory

AICS On the inventory, or in compliance with the inventory

NZIoC Not in compliance with the inventory

ENCS On the inventory, or in compliance with the inventory

KECI On the inventory, or in compliance with the inventory

PICCS On the inventory, or in compliance with the inventory

IECSC On the inventory, or in compliance with the inventory

TWINV Not in compliance with the inventory

Inventories Legend TSCA (USA), DSL (Canada), REACH(Europe), AICS (Australia), NZIoC (New Zealand), ENCS (Japan), KECI (Korea), PICCS (Philippines), IECSC (China), TWINV (Taiwan)
This safety data sheet is intended to provide a brief summary of our knowledge and guidance regarding the use of this material. It is not meant to be an all-inclusive document on worldwide hazard communication regulation. This information is believed to be accurate as of the date issued. Each user of this material needs to evaluate the conditions of use and design the appropriate protective mechanisms to prevent exposures, property damage, or release to the environment. No warranty is expressed or implied with respect to the information herein supplied, and no responsibility for injury to the recipient or third persons, or for any damage to any property is assumed.