



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name SHATTERED 99
Product number 193019 / 121019
Revision date 23-Mar-2006
Company information Brulin & Company, Inc.
P.O. Box 270
Indianapolis, IN 46206 US
www.Brulin.com
Emergency CHEMTREC 1-800-424-9300
General information Phone: 317-923-3211
Fax: 317-925-4596

2. Hazards Identification

Emergency overview Harmful by inhalation, in contact with skin and if swallowed. Causes severe skin and eye burns. Prolonged exposure may cause chronic effects.
Potential short term health effects
Routes of exposure Inhalation. Skin contact. Ingestion.
Eyes This product causes eye burns. Risk of serious damage to eyes. Avoid contact with eyes.
Skin Harmful in contact with skin. Causes severe skin burns. Avoid contact with the skin.
Inhalation Harmful if inhaled. Do not breathe vapor.
Ingestion Harmful if swallowed. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.
Target organs Blood. Central nervous system. Eyes. Kidney. Liver. Respiratory system. Skin.
Potential environmental effects Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

3. Composition / Information on Ingredients

Hazardous component(s)	CAS #	Percent
Benzyl alcohol	100-51-6	< 60
2-Butoxyethanol	111-76-2	< 40
Ethanolamine	141-43-5	< 40

4. First Aid Measures

First aid procedures
Eye contact Immediately flush eyes with plenty of water for at least 20 minutes. Get medical attention immediately.
Skin contact Immediately flush skin with running water for at least 20 minutes. Wash off with soap and water. Get medical attention immediately. Launder contaminated clothing before reuse. Discard any shoes or clothing items that cannot be decontaminated.
Inhalation Move to fresh air. Oxygen or artificial respiration if needed. Get medical attention immediately.
Ingestion If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice. Have victim rinse mouth thoroughly with water. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth to a victim who is unconscious or is having convulsions.
General advice Keep victim warm. Take off contaminated clothing and shoes immediately. In case of shortness of breath, give oxygen. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SHATTERED 99

Product number: 193019 / 121019

5. Fire Fighting Measures

Flammable properties	None known.
Extinguishing media	
Suitable extinguishing media	Carbon dioxide (CO2). Foam. Dry chemical.

6. Accidental Release Measures

Personal precautions	Ensure adequate ventilation. Use personal protective equipment. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Environmental precautions	Do not contaminate water.
Methods for containment	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps.
Methods for cleaning up	Never return spills in original containers for re-use. Large Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Dike far ahead of liquid spill for later disposal. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean contaminated surface thoroughly. Prevent product from entering drains. Do not allow material to contaminate ground water system. Soak up with inert absorbent material and dispose of as hazardous waste. After removal flush contaminated area thoroughly with water.

7. Handling and Storage

Handling	When using do not eat or drink. Avoid contact with skin and eyes.
Storage	Keep this material away from food, drink and animal feed. Keep at temperatures between 4 and 49??C.

8. Exposure Controls / Personal Protection

Exposure guidelines

ACGIH - Threshold Limits Values - Short Term Exposure Limits (TLV-STEL)

Ethanolamine	141-43-5	6 Ppm STEL
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ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

2-Butoxyethanol	111-76-2	20 Ppm TWA
Ethanolamine	141-43-5	3 Ppm TWA

ACGIH - Threshold Limits Values - TLV Basis - Critical Effects

2-Butoxyethanol	111-76-2	Irritation; CNS
Ethanolamine	141-43-5	irritation

OSHA - Final PELs - Skin Notations

2-Butoxyethanol	111-76-2	prevent or reduce skin absorption
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OSHA - Final PELs - Time Weighted Averages (TWAs)

2-Butoxyethanol	111-76-2	50 Ppm TWA; 240 mg/m3 TWA
Ethanolamine	141-43-5	3 Ppm TWA; 6 mg/m3 TWA

Engineering controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Personal protective equipment	
Eye / face protection	Wear chemical goggles.
Skin protection	Avoid contact with the skin. Wear suitable protective clothing. Wear chemical protective equipment that is specifically recommended by the manufacturer. Protective gloves.
Respiratory protection	None required where adequate ventilation conditions exist. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
General hygiene considerations	When using do not eat or drink. Avoid contact with skin. Avoid contact with eyes.

9. Physical & Chemical Properties

Appearance	Not available
Clarity	Not available

SHATTERED 99

Product number: 193019 / 121019

Color	clear, dark red
Form	Liquid.
Odor	amine
Odor threshold	Not available
Physical state	Liquid
pH	11.7
Melting point	30 °F
Freezing point	Not available
Boiling point	Not available
Flash point	175 °F Pensky-Martens Closed Cup
Evaporation rate	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	0.998
Relative density	Not available
Solubility (H ₂ O)	100 %
Octanol/H ₂ O coeff	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
VOC (Weight %)	69.53 %

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Incompatible materials	Isocyanates. Strong oxidizing agents. copper
Hazardous decomposition products	Carbon oxides. Nitrogen oxides (NO _x).
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Acute effects	Acute LD50: 950 mg/kg, Rat, Oral Acute LD50: 735 mg/kg, Rat, Dermal Acute LC50: 1820 mg/l/4h, Rat, Inhalation Causes severe burns.
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12. Ecological Information

Ecotoxicity	Components of this product have been identified as having potential environmental concerns.
Environmental effects	Harmful to aquatic life. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Aquatic toxicity	May cause long-term adverse effects in the aquatic environment.

13. Disposal Considerations

Disposal instructions	Dispose in accordance with all applicable regulations. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. This material and its container must be disposed of as hazardous waste. Do not dispose of waste into sewer. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities.
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SHATTERED 99

Product number: 193019 / 121019

14. Transport Information

Department of Transportation (DOT) Requirements

Basic shipping requirements:

Proper shipping name	Ethanolamine
Hazard class	8
UN number	UN2491
Packaging group	III

Additional information:

Special provisions	IB3, T4, TP1
Packaging exceptions	154
Packaging non bulk	203
Packaging bulk	241
ERG number	153

Department of Transportation (DOT) Requirements NON-BULK

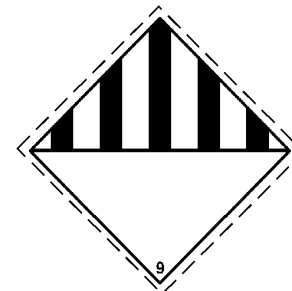
Basic shipping requirements:

Proper shipping name	CONSUMER COMMODITY - ORMD
Hazard class	9

DOT



DOT NON-BULK



IATA

Basic shipping requirements:

Proper shipping name	Ethanolamine Solution (MEA)
Hazard class	8
UN number	UN2491
Packaging group	III

Additional information:

Packaging exceptions	150
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IATA



IMDG

Basic shipping requirements:

Proper shipping name	ETHANOLAMINE or ETHANOLAMINE SOLUTION
Hazard class	8
Subsidiary hazard class	8
UN number	UN2491
Packaging group	III

Additional information:

Packaging exceptions	154
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IMDG



SHATTERED 99

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15. Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

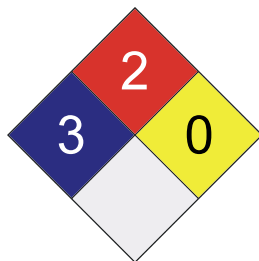
International regulations The product is classified and labelled in accordance with EC directives or respective national laws.

16. Other Information

HMIS rating

Health	* 3
Flammability	2
Physical Hazard	0
Personal Protection	B

NFPA codes



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Superseded date

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Disclaimer

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