



## MATERIAL SAFETY DATA SHEET

### 1. Product and Company Identification

**Material name** 815 QR  
**Product number** 301004  
**Revision date** 27-Feb-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** CAUTION  
Contact with this material can cause irritation to the skin, eyes and mucous membranes. This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**Potential short term health effects**

**Routes of exposure** Inhalation. Skin contact. Eye contact

**Eyes** Avoid contact with eyes. This product may cause slight irritation to the eyes.

**Skin** Prolonged and/or repeated skin contact may result in mild irritation or redness.

**Inhalation** Prolonged or excessive inhalation may cause respiratory tract irritation.

**Ingestion** May cause temporary irritation of the throat, stomach, and gastrointestinal tract.

**Signs and symptoms** Contact with eyes may cause irritation. redness Prolonged skin contact may cause skin irritation. Cough. Discomfort in the chest. Ingestion may cause irritation to mucous membranes.

### 3. Composition / Information on Ingredients

Hazardous component(s)	CAS #	Percent
Ethanolamine	141-43-5	< 10

### 4. First Aid Measures

**First aid procedures**

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**Skin contact** Wash with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

**Inhalation** Move to fresh air. Get medical attention, if needed.

**Ingestion** If conscious, drink plenty of water. Get medical attention immediately.

**General advice** In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### 5. Fire Fighting Measures

**Flammable properties** None known.

**Extinguishing media**

**Suitable extinguishing media** Use any media suitable for the surrounding fires.

## 6. Accidental Release Measures

<b>Personal precautions</b>	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unnecessary personnel away.
<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for containment</b>	Stop the flow of material, if this is without risk.
<b>Methods for cleaning up</b>	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.
	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean contaminated surface thoroughly.

## 7. Handling and Storage

<b>Handling</b>	Avoid contact with skin and eyes.
<b>Storage</b>	Keep container tightly closed. Keep at temperatures between 4 and 48°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

#### ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

Ethanolamine 141-43-5 3 Ppm TWA

#### ACGIH - Threshold Limits Values - TLV Basis - Critical Effects

Ethanolamine 141-43-5 irritation

#### OSHA - Final PELs - Time Weighted Averages (TWAs)

Ethanolamine 141-43-5 3 Ppm TWA; 6 mg/m<sup>3</sup> TWA

### Personal protective equipment

<b>Eye / face protection</b>	Avoid contact with the skin and the eyes. Wear chemical goggles. or Safety glasses.
<b>Respiratory protection</b>	Not normally needed. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical & Chemical Properties

<b>Appearance</b>	clear liquid
<b>Clarity</b>	Not available
<b>Color</b>	blue
<b>Form</b>	Liquid.
<b>Odor</b>	citrus
<b>Odor threshold</b>	Not available
<b>Physical state</b>	Liquid
<b>pH</b>	11.7 - 12.9
<b>Melting point</b>	30 °F
<b>Freezing point</b>	Not available
<b>Boiling point</b>	212 °F
<b>Flash point</b>	> 212 °F Pensky-Martens Closed Cup
<b>Evaporation rate</b>	1
<b>Flammability limits in air, lower, % by volume</b>	Not available
<b>Flammability limits in air, upper, % by volume</b>	Not available
<b>Vapor pressure</b>	0.2 Mm Hg @68°F
<b>Vapor density</b>	2.1 Ethanolamine (Air=1)

Specific gravity	1.067
Relative density	Not available
Solubility (H2O)	100 %
Octanol/H2O coeff	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
VOC (Weight %)	8.25 %

## 10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Conditions to avoid	Do not freeze.
Incompatible materials	Strong oxidizing agents. Strong acids.
Hazardous decomposition products	At thermal decomposition temperatures, carbon monoxide and carbon dioxide. Nitrogen oxides (NOx).

## 11. Toxicological Information

Acute effects	Acute LD50: 10268 mg/kg estimated, Rat, Oral
Further information	Symptoms may be delayed.

## 12. Ecological Information

Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
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## 13. Disposal Considerations

Waste codes	D002: Waste Corrosive material [pH $\leq 2$ or $\geq 12.5$ , or corrosive to steel]
Disposal instructions	Dispose in accordance with all applicable regulations. This material and its container must be disposed of as hazardous waste.

## 14. Transport Information

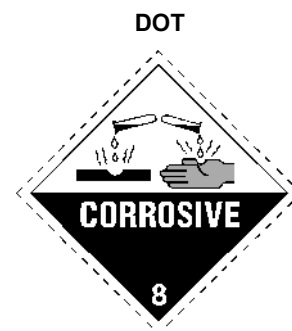
### Department of Transportation (DOT) Requirements

#### Basic shipping requirements:

Proper shipping name	Corrosive liquids, n.o.s. (ETHANOLAMINE)
Hazard class	8
UN number	UN1760
Packaging group	III

#### Additional information:

Special provisions	IB3, T7, TP1, TP28
Packaging exceptions	154
Packaging non bulk	203
Packaging bulk	241
ERG number	154



## 815 QR

Product number: 301004

### Department of Transportation (DOT) Requirements NON-BULK

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#### DOT NON-BULK



### IATA

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#### IATA



### IMDG

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#### IMDG



## 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.

CERCLA/SARA Hazardous Substances - Not applicable.

#### Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical	Yes
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#### CERCLA (Superfund) reportable quantity

None

#### Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
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**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** Yes

### Inventory status

#### Country(s) or region

Australia

Canada

China

Korea

Philippines

United States & Puerto Rico

#### Inventory name

Australian Inventory of Chemical Substances (AICS)

Domestic Substances List (DSL)

Inventory of Existing Chemical Substances in China (CCS)

Korean Inventory of Chemicals (KICS)

Philippine Inventory of Chemicals and Chemical Substances (PICCS)

Toxic Substances Control Act (TSCA) Inventory

### International regulations

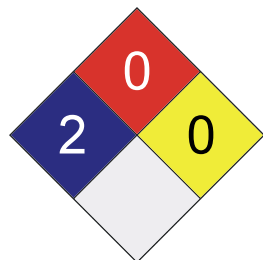
The product is classified and labelled in accordance with EC directives or respective national laws.

## 16. Other Information

### HMIS rating

Health	/ 2
Flammability	0
Physical Hazard	0
Personal Protection	B

### NFPA codes



### Prepared date

27-Feb-2006 09:19:06

### Superseded date

05-Jan-2006 10:51:51

### 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.