



**SIERRA STONE  
ECONOBLEND  
HARDENER**

**Safety Data Sheet  
SIERRA STONE ECONOBLEND HARDENER**

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Revision date: 2015/08/19

**EW INDUSTRIES LTD**

Box 336, Imperial, SK Canada S0G 2J0 1-888-799-3960 [www.sierrastone.com](http://www.sierrastone.com)

**1. Identification**

**Product identifier used on the label**

**SIERRA STONE ECONOBLEND HARDENER**

**Recommended use of the chemical and restriction on use**

**Stone and Epoxy System. Aggregate Binder.**

\* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

**Details of the supplier of the safety data sheet**

Company:  
EW Industries  
Box 336  
Imperial, SK S0G 2J0

1-888-799-3960

**Emergency telephone number**

CHEMTREC: 1-800-424-9300

**Other means of identification**

Chemical family: mixed amine  
Synonyms: mixed amine



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### 2. Hazards Identification

**According to Regulation 2012 OSHA Hazard Communication Standard: 29 CFR Part 1910.1200**

#### Classification of the product

Skin Corr./Irrit.	1C	Skin corrosion/irritation
Eye Dam./Irrit.	1	Serious eye damage/eye irritation
Aquatic Acute	3	Hazardous to the aquatic environment - acute
Aquatic Chronic	2	Hazardous to the aquatic environment - chronic

Label Elements

Pictogram:



Signal Word: Danger

Hazard Statement:

- May be corrosive to metals.
- Causes serious eye damage.
- Causes skin irritation.
- Toxic if swallowed.
- Harmful to aquatic life.
- Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

- Wear protective gloves and eye/face protection.
- Avoid release to the environment.
- Wash with plenty of water and soap thoroughly after handling.



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Keep only in original container.

### Precautionary Statements (Response):

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER or doctor/physician.  
Rinse mouth.  
IF ON SKIN (or hair): Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Collect spillage.

### Precautionary Statements (Storage):

Store locked up.  
Store in corrosive-resistant container with a resistant inner liner.

### Precautionary Statements (Disposal):

Dispose of contents/container to hazardous or special waste collection point.

### Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

According to Regulation 1994 OSHA Hazard Communication Standard: 29 CFR Part 1910.1200

### Emergency overview

#### WARNING:

CORROSIVE LIQUID. CAUSES EYE BURNS.  
CAUSES SKIN IRRITATION.  
CAUSES RESPIRATORY TRACT IRRITATION.

Toxic by inhalation.

Use with local exhaust ventilation.

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator. Wear NIOSH-certified chemical goggles.

Wear protective clothing.



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#### 3. Composition / Information on Ingredients

Components	CAS Number	Concentration (Weight)
Reaction products of di-, tri-, and tetra-propoxylatedpropane-1, 2-diol with ammonia	9046-10-0	30 - 55 %
Nonyl Phenol	84852-15-3	45 - 70 %
Proprietary Ingredients	Proprietary	< 15 %

CHEMICAL FAMILY: Cycloaliphatic Amine

#### 4. First-Aid Measures

##### Description of first aid measures

###### General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

###### If inhaled:

Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

###### If on skin:

Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Take off contaminated clothing and shoes immediately.

###### If in eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

###### If swallowed:

Never give anything by mouth to an unconscious person. Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.



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### **Most important symptoms and effects, both acute and delayed:**

Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore Throat, Neurological Disorders, Asthma, Skin Disorders and Allergies, Eye Disease.

### Note to physician

Treatment: Application of corticosteroid cream has been effective in treating skin irritation. Treat according to symptoms (decontamination, vital functions), no known specific antidote.

## 5. Fire-Fighting Measures

### **Extinguishing media**

Alcohol-resistant foam. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Dry sand. Limestone powder.

### **Special hazards arising from the substance or mixture**

No particular hazards known.

### **Advice for firefighters**

Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Wear self-contained breathing apparatus for firefighting if necessary.

### **Further information:**

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

### **Impact Sensitivity:**

Remarks: No data available.

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## 6. Accidental release measures

### **Personal precautions, protective equipment and emergency procedures**

Use self-contained breathing apparatus and chemically protective clothing. Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas.



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### **Environmental precautions**

Construct a dike to prevent spreading

### **Methods and material for containment and cleaning up**

Spills should be contained, solidified, and placed in suitable containers for disposal.

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## 7. Handling and Storage

### **Handling**

Do not use sodium nitrite or other nitrosating agents in formulations containing this product. Suspected cancer-causing nitrosamines could be formed. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Avoid contact with eyes. Use only in well-ventilated areas. Avoid breathing vapors and/or aerosols. Use personal protective equipment. When using, do not eat, drink or smoke.

Protection against fire and explosion:

Take precautionary measures against static discharges.

### **Conditions for safe storage, including any incompatibilities**

Segregate from acids and acid forming substances.

Further information on storage conditions: Containers should be stored tightly sealed in a dry place. Keep container tightly closed and in a well-ventilated place. Keep away from sources of ignition - No smoking. Keep container tightly closed.

Storage stability: Do not store in reactive metal containers. Keep container dry because product takes up the humidity of air.

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## 8. Exposure Controls/Personal Protection

### **Engineering Measures**

Provide readily accessible eye wash stations and safety showers.



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Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits

### **Personal protective equipment**

#### **Respiratory protection:**

Wear a NIOSH-certified (or equivalent) organic vapor/particulate respirator when ventilation is inadequate. Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination. For emergency or non-routine, high exposure situations, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

#### **Hand protection:**

Butyl-rubber, nitrile rubber, neoprene, PVC disposable, or otherwise impervious gloves should be worn.

Chemical resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

#### **Eye protection:**

Wear face shield or tightly fitting safety goggles (chemical goggles).

#### **Body protection:**

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit, long-sleeve shirts, trousers without cuffs.

#### **General safety and hygiene measures:**

Eye wash fountains and safety showers must be easily accessible. Wear protective clothing as necessary to prevent contact. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Hands and/or face should be washed before breaks and at the end of the shift. When using, do not eat, drink or smoke. Remove contaminated clothing. Discard contaminated leather articles.

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## 9. Physical and Chemical Properties

Form:	Liquid
Odor:	Amine-Like
Color:	Clear, Colorless
pH value:	Alkaline, 11-12



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Melting point:	< -30 °C	
Boiling point:	> 200 °C	
Flash point:	> 200 °F	(ASTM D93)
Flammability:	Not flammable	
Lower explosion limit:	Not applicable	
Upper explosion limit:	Not applicable	
Autoignition:	> 200 °C	
Vapor pressure:	< 1.00 mmHg at 70 °F (21 °C)	
Density:	0.975 g/cm <sup>3</sup> at 70 °F (21 °C)	
Viscosity, Dynamic	2500-3000 CPS	
Solubility in water	Not very soluble < 1%	
Evaporation rate:	< Ether	

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## 10. Stability and Reactivity

### Chemical Stability:

Stable under normal conditions.

### Conditions to avoid:

No data available.

### Materials to avoid:

Acids, oxidizing agents

### Hazardous decomposition products:

Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

### Possibility of hazardous Reactions/Reactivity:

315 °C (DSC (DIN51007))

Thermal decomposition above the indicated temperature is possible. Self-accelerating reaction.

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### 11. Toxicological information

#### Information on toxicological effects

##### Likely routes of exposure

##### Effects on Eye:

Severe eye irritation.

##### Effects on Skin:

If absorbed through the skin, may cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties.

##### Inhalation Effects:

May cause Central Nervous System effects, such as headache, nausea, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure. May cause nose, throat, and lung irritation. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system.

##### Ingestion Effects:

Harmful if swallowed. May cause central nervous system effects, such as headache, nausea, vomiting, abdominal pain, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure.

##### Symptoms:

Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause Sore Throat, Neurological Disorders, Asthma, Skin Disorders and Allergies, Eye Disease.

##### Acute toxicity

Acute Oral Toxicity: LD50 : 1,000 mg/kg Species : Rat.

##### Inhalation:

No data is available on the product itself. Inhalation - Components  
Benzyl alcohol: LC50 (4 h): > 4.178 mg/l OECD Test Guideline 403  
Species: Rat.

##### Acute Dermal Toxicity:

LD50 : > 2,800 mg/kg Species : Rabbit.



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Skin Corrosion/Irritation: Severe skin irritation. Corrosive to the skin of a rabbit.

Serious Eye Damage/Eye Irritation: Severe eye irritation.

Sensitization: May cause sensitization by skin contact.

### Chronic Toxicity or Effects from Long Term Exposures

Carcinogenicity: No data available.

Reproductive Toxicity: No data is available on the product itself.

Germ Cell Mutagenicity: No data is available on the product itself.

Specific Target Organ Systemic Toxicity (single exposure): No data is available.

Specific Target Organ Systemic Toxicity (repeated exposure): No data is available.

This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Prolonged contact may result in chemical burns and permanent damage. Repeated or prolonged contact causes sensitization, asthma and eczemas. Neurological Disorders, Asthma, Skin Disorders and Allergies, Eye Disease.

Rats exposed orally to 800 mg/kg benzyl alcohol for thirteen weeks exhibited CNS depression and histopathological changes in the brain, thymus and skeletal muscles. The No Observed Adverse Effect Level (NOAEL) was 400 mg/kg. No evidence of carcinogenicity was seen in a two-year study with rats and mice.

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## 12. Ecological Information

### EcoToxicity Effects

Aquatic toxicity: No data available on the product itself

Toxicity to fish:  
Benzyl alcohol LC50 (96 h) : 10 mg/l Species : Bluegill sunfish (*Lepomis macrochirus*).



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Benzyl alcohol LC50 (96 h) : 460 mg/l Species : Fathead minnow (*Pimephales promelas*).

Toxicity to algae:

Benzyl alcohol IC50 (72 h) : 700 mg/l Species : Algae.

Toxicity to other organisms: No data available.

Persistence and degradability:

Biodegradability: No data is available on the product itself.

Mobility: No data available.

Bioaccumulation: No data is available on the product itself.

Bioaccumulation:

Benzyl alcohol: Low bioaccumulation potential.

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### 13. Disposal Considerations

Dispose of in a licensed facility. Do not discharge into waterways or sewer systems without proper authorization. Dispose in accordance with all applicable regulations. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

#### Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

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### 14. Transport Information

#### Land transport

USDOT

Hazard class: 8

Packing group: III

ID number: UN 2735

Hazard label: 8

Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S., (Contains Polyetherdiamine)

Marine Pollutant: No



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### Sea transport

IMDG

Hazard class: 8  
Packing group: III  
ID number: UN 2735  
Hazard label: 8  
Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S., (Contains Polyetherdiamine)  
Marine pollutant: YES (para-nonylphenol)

### Air transport

IATA/ICAO

Hazard class: 8  
Packing group: III  
ID number: UN 2735  
Hazard label: 8  
Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S., (Contains Polyetherdiamine)  
Marine pollutant: YES (para-nonylphenol)

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## 15. Regulatory Information

Toxic Substance Control Act (TSCA) 12(b) **Registration status:**  
Chemical TSCA, US released /listed

EPCRA 311/312 (Hazard categories): Acute:

### NFPA Hazard codes:

Health : 3 Fire: 1 Reactivity: 0 Special:

HMIS III rating

Health: 3 Flammability: 1 Physical hazard:0

Assessment of the hazard classes according to UN GHS criteria (most recent version):



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Aquatic Acute	3		Hazardous to the aquatic environment - acute
Aquatic Chronic	3		Hazardous to the aquatic environment - chronic
Acute Tox.	3	(oral)	Acute toxicity
Acute Tox.	3	(dermal)	Acute toxicity
Skin Corr./Irrit.	2		Skin corrosion/irritation
Eye Dam./Irrit.	1		Serious eye damage/eye irritation

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#### 16. Other Information

##### HMIS Rating

Health	:	3
Flammability	:	1
Physical hazard	:	0

##### SDS Prepared by:

EW Industries

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