



## 1. Product and Company Identification

<b>Material name</b>	<b>COMBAT 350-B</b>	
<b>Version #</b>	06	
<b>Revision date</b>	01-01-2014	
<b>CAS #</b>	Mixture	
<b>Manufacturer</b>	<b>Refractory Anchors, Inc.</b> 9836 S. 219th E. Ave. Broken Arrow, OK 74014 USA  800-331-3270 www.rai-1.com sales@rai-1.com  CHEMTREC: 1-800-424-9300 8:00 am - 5:00 pm	<b>Matrix Solutions, Inc.</b> 9836 S. 219th E. Ave. Broken Arrow, OK 74014 USA  800-331-3270 www.endcorrosion.com sales@endcorrosion.com  CHEMTREC: 1-800-424-9300 8:00 am - 5:00 pm

## 2. Hazards Identification

<b>Emergency overview</b>	DANGER  Corrosive. Causes skin and eye burns.
<b>OSHA regulatory status</b>	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
<b>Potential health effects</b>	
<b>Routes of exposure</b>	Inhalation. Ingestion. Skin contact. Eye contact.
<b>Eyes</b>	Causes eye burns. Risk of serious damage to eyes. Do not get this material in contact with eyes.
<b>Skin</b>	Causes skin burns. Do not get this material in contact with skin.
<b>Inhalation</b>	Causes burns. May be irritating. Prolonged inhalation may be harmful. Do not breathe dust/fume/gas/mist/vapors/spray.
<b>Ingestion</b>	Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.
<b>Signs and symptoms</b>	Irritation of nose and throat. Irritation of eyes and mucous membranes.
<b>Potential environmental effects</b>	May cause long-term adverse effects in the environment.

## 3. Composition / Information on Ingredients

<b>Hazardous components</b>	<b>CAS #</b>	<b>Percent</b>
BENZYL ALCOHOL	100-51-6	30 - 35
[3-(aminoethyl)phenyl]methanamine	1477-55-0	1 - 3
<b>Non-hazardous components</b>	<b>CAS #</b>	<b>Percent</b>
4,4'-METHYLENEBIS(CYCLOHEXYLAMINE)	1761-71-3	10 - 20
[(DIMETHYLAMINO)METHYL]PHENOL	25338-55-0	0 - 5
3-AMINOPROPYLTRIETHOXYSILANE	919-30-2	1 - 3
Other components below reportable levels		40 - 50



## 4. First Aid Measures

### First aid procedures

#### Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

#### Skin contact

Remove and isolate contaminated clothing and shoes. Immediately flush skin with plenty of water. Get medical attention immediately. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse.

#### Inhalation

Move to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention immediately.

#### Ingestion

Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

### Notes to physician

In case of shortness of breath, give oxygen. Keep victim warm.

### General advice

Immediate medical attention is required. In case of shortness of breath, give oxygen. Keep victim warm. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire Fighting Measures

### Flammable properties

The product is not flammable. No unusual fire or explosion hazards noted.

### Extinguishing media

#### Suitable extinguishing media

Water. Foam. Alcohol foam. Dry powder. Carbon dioxide (CO<sub>2</sub>).

### Fire fighting equipment/instructions

In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers. Cool containers exposed to flames with water until well after the fire is out.

### Specific methods

In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers.

## 6. Accidental Release Measures

### Personal precautions

Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Keep upwind. Keep out of low areas. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. 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. Prevent entry into waterways, sewer, basements or confined areas.

### Methods for cleaning up

Should not be released into the environment.

Large Spills: Dike far ahead of spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Following product recovery, flush area with water.

Never return spills in original containers for re-use. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container.

## 7. Handling and Storage

### Handling

Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not get this material on clothing. Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Avoid release to the environment. Handle and open container with care.



## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### US ACGIH Threshold Limit Values

Components	Type	Value
[3-(aminoethyl)phenyl]methanamine (1477-55-0)	Ceiling	0.1 mg/m <sup>3</sup>

### Exposure guidelines

#### US ACGIH Threshold Limit Values: Skin designation

[3-(aminoethyl)phenyl]methanamine (CAS 1477-55-0) Can be absorbed through the skin.

### Engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### Personal protective equipment

#### Eye / face protection

Do not get in eyes. Face-shield.

#### Skin protection

Do not get this material in contact with skin. Do not get this material on clothing. Wear chemical protective equipment that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural firefighters protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations. Chemical resistant gloves.

#### Respiratory protection

Do not breathe dust/fume/gas/mist/vapors/spray. If ventilation is insufficient, suitable respiratory protection must be provided.

#### General hygiene considerations

Do not get in eyes. Do not get this material in contact with skin. Do not get this material on clothing. When using, do not eat, drink or smoke. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical & Chemical Properties

Appearance	Liquid.
Physical state	Liquid.
Form	Liquid.
Color	Light Amber to Golden
Odor	Ammoniacal. Amine-like.
Odor threshold	Not available.
pH	Alkaline
Vapor pressure	Not available.
Vapor density	Not available.
Boiling point	Not available.
Melting point/Freezing point	Not available.
Solubility (water)	Partial
Specific gravity	0.95
Relative density	Not available.
Flash point	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
Other data	
Flammability class	Combustible IIIA estimated

## 10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Conditions to avoid	Not available.
Incompatible materials	Alkaline metals. Amines. Peroxides. Acids. Fluorine. Chlorine. Strong acids, alkalis and oxidizing agents.

**Hazardous decomposition products**

Toxic gas. If product is burned hazardous gases such as oxides of carbon and nitrogen and various hydrocarbons may be produced. Upon combustion, oxides of chlorine may be released.

**Possibility of hazardous reactions**

Hazardous polymerization can occur with elevated temperatures.

## 11. Toxicological Information

### Toxicological data

**Product**

SC3300 Series Part B (Mixture)

**Test Results**

Acute Dermal LD50 Rabbit: 6546.8804 mg/kg estimated  
Acute Inhalation LC100 Rat: 654.688 mg/l estimated  
Acute Inhalation LC50 Rat: 3273.4402 mg/l estimated  
Acute Oral LD50 Mouse: 5172.0356 mg/kg estimated  
Acute Oral LD50 Rabbit: 6350.4741 mg/kg estimated  
Acute Oral LD50 Rat: 4026.3315 mg/kg estimated  
Acute Other LD50 Guinea pig: 1309.3761 mg/kg estimated  
Acute Other LD50 Mouse: 1060.5946 mg/kg estimated  
Acute Other LD50 Rat: 173.4923 mg/kg estimated

**Components**

BENZYL ALCOHOL (100-51-6)

**Test Results**

Acute Dermal LD50 Rabbit: 2000 mg/kg  
Acute Inhalation LC100 Rat: 200 - 300 mg/l 8 Hours  
Acute Inhalation LC50 Rat: 1000 mg/l 8 Hours  
Acute Oral LD50 Mouse: 1580 mg/kg  
Acute Oral LD50 Rabbit: 1940 mg/kg  
Acute Oral LD50 Rat: 1230 - 3100 mg/kg  
Acute Other LD50 Guinea pig: > 400 mg/kg  
Acute Other LD50 Mouse: 324 mg/kg  
Acute Other LD50 Rat: 53 mg/kg

**Acute effects**

Causes burns.

**Chronic effects**

Prolonged inhalation may be harmful.

**Carcinogenicity**

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**Skin corrosion/irritation**

Hazardous by OSHA criteria.

## 12. Ecological Information

### Ecotoxicological data

**Product**

SC3300 Series Part B (Mixture)

**Test Results**

LC50 Fish: 529.2062 mg/l 96 hours estimated

**Components**

BENZYL ALCOHOL (100-51-6)

**Test Results**

LC50 Bluegill (*Lepomis macrochirus*): 10 mg/l 96 hours

\* Estimates for product may be based on additional component data not shown.

**Ecotoxicity**

Contains a substance which causes risk of hazardous effects to the environment

**Environmental effects**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal

**Persistence and degradability**

Not available.

## 13. Disposal Considerations

**Disposal instructions**

Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.

**Waste from residues / unused products**

Not applicable.

## 14. Transport Information

**DOT**

**Basic shipping requirements:**

**UN number** 2735



**Proper shipping name** Amine, Liquid, Corrosive, N.O.S. (Benzene -1,3- dimethanamine)  
**Hazard class** 8  
**Packing group** III  
**Additional information:**  
**ERG number** 153



## 15. Regulatory Information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.  
 CERCLA/SARA Hazardous Substances - Not applicable.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2))**  
 Not regulated

**DEA Essential Chemical Code Number**  
 Not regulated

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**  
 Not regulated

**DEA Exempt Chemical Mixtures Code Number**  
 Not regulated

**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

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** No

### Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No



Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)		
<b>State regulations</b>	This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.	
<b>US - New Jersey RTK - Substances: Listed substance</b>		
	[3-(aminoethyl)phenyl]methanamine (CAS 1477-55-0)	Listed.
<b>US - Pennsylvania RTK - Hazardous Substances: Listed substance</b>		
	[3-(aminoethyl)phenyl]methanamine (CAS 1477-55-0)	Listed.
	BENZYL ALCOHOL (CAS 100-51-6)	Listed.

## 16. Other Information

<b>Further information</b>	HMIS® is a registered trade and service mark of the NPCA.
<b>HMIS® ratings</b>	Health: 3* Flammability: 0 Physical hazard: 0
<b>NFPA ratings</b>	Health: 3 Flammability: 0 Instability: 0
<b>Disclaimer</b>	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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. 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.
<b>Issue date</b>	Not available.
<b>This data sheet contains changes from the previous version in section(s):</b>	Physical & Chemical Properties: Multiple Properties