



1. Product and Company Identification

Material name	COMBAT Diamond-B	
Version #	01	
Revision date	10-01-2012	
CAS #	Mixture	
Manufacturer	Refractory Anchors, Inc. 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	Matrix Solutions, Inc. 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

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

3. Composition / Information on Ingredients

Hazardous components	CAS #	Percent
TRIETHYLENETETRAMINE	112-24-3	1 - 5
BENZYL ALCOHOL	100-51-6	10 - 20
Non-hazardous components	CAS #	Percent
ETHYLENEDIAMINE	107-15-3	< 1
3-AMINOPROPYLTRIETHOXYSILANE	919-30-2	1 - 2.5
MIXED CYCLOALIPHATIC AMINES	Mixture	5 - 20
ALKYLATED PHENOLIC POLYAMINE	68413-28-5	10 - 20
Polyamidoamine	Mixture	30 - 50
Polyamide Resin	Mixture	30 - 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

Take off immediately all contaminated clothing. 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

Combustible by OSHA criteria. NFPA Rating Fire = 2. Materials that must be moderately heated or exposed to relative high ambient temperatures before ignition can occur. Heat may cause the containers to explode. Runoff to sewer may cause fire or explosion hazard.

Extinguishing media

Suitable extinguishing media

Water. Dry powder. Carbon dioxide (CO₂). Alcohol foam.

Unsuitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire.

Protection of firefighters

Specific hazards arising from the chemical

Fire may produce irritating, corrosive and/or toxic gases.

Specific methods

In the event of fire and/or explosion do not breathe fumes. In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers.

Hazardous combustion products

May include oxides of nitrogen.

6. Accidental Release Measures

Personal precautions

Keep unnecessary personnel away. Keep upwind. Keep out of low areas. Keep people away from and upwind of spill/leak. Ventilate closed spaces before entering them. 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

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). 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: Clean surface thoroughly to remove residual contamination. Following product recovery, flush area with water. Absorb spill with vermiculite or other inert material.

Never return spills in original containers for re-use.



7. Handling and Storage

Handling

DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke. All equipment used when handling the product must be grounded. Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid breathing dust/fume/gas/mist/vapors/spray. 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.

Storage

The pressure in sealed containers can increase under the influence of heat. Keep away from heat and sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a well-ventilated place. Keep container tightly closed. Keep out of the reach of children. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Personal protective equipment

Eye / face protection

Do not get in eyes. Chemical goggles are recommended. 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 not sufficient to effectively prevent buildup of aerosols or vapors, appropriate NIOSH/MSHA 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.
Color	Golden to Light Amber
Odor	Amine-like. Ammoniacal.
Odor threshold	Not available.
Physical state	Liquid.
Form	Liquid.
pH	Alkaline
Melting point	Not available.
Freezing point	Not available.
Boiling point	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Specific gravity	0.95
Relative density	Not available.
Solubility (water)	Partial
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
VOC	Not available.



10. Chemical Stability & Reactivity Information

Chemical stability	Stable under normal temperature conditions.
Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials.
Incompatible materials	Peroxides. Strong acids, alkalies and oxidizing agents. Fluorine. Chlorine.
Hazardous decomposition products	If product is burned hazardous gases such as oxides of carbon and nitrogen and various hydrocarbons may be produced.

11. Toxicological Information

Toxicological data

Product

SP2000 B (Mixture)

Test Results

Acute Dermal LD50 Rabbit: 11801 mg/kg estimated
Acute Inhalation LC100 Rat: 1235 mg/l estimated
Acute Inhalation LC50 Rat: 6174 mg/l estimated
Acute Oral LD50 Mouse: 9755 mg/kg estimated
Acute Oral LD50 Rabbit: 11978 mg/kg estimated
Acute Oral LD50 Rat: 7290 mg/kg estimated
Acute Other LD50 Guinea pig: 2470 mg/kg estimated
Acute Other LD50 Mouse: 1947 mg/kg estimated

Components

BENZYL ALCOHOL (100-51-6)

Test Results

Acute Dermal LD50 Guinea pig: ≤ 5 ml/kg
Acute Dermal LD50 Rabbit: 2000 mg/kg
Acute Inhalation LC100 Rat: 200 - 300 mg/l 8.00 Hours
Acute Inhalation LC50 Rat: 1000 mg/l 8.00 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 Mouse: ≤ 0.499999 ml/kg
Acute Other LD50 Rat: 53 mg/kg

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

Acute effects	Causes burns.
Local effects	Irritating to respiratory system.
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

SP2000 B (Mixture)

Test Results

LC50 Fish: 993 mg/l 96.00 Hours estimated

Components

BENZYL ALCOHOL (100-51-6)

ETHYLENEDIAMINE (107-15-3)

Test Results

LC50 Bluegill (*Lepomis macrochirus*): 10 mg/l 96.00 Hours
LC50 Fathead minnow (*Pimephales promelas*): 98.6 - 131.6 mg/l 96.00 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 Dispose of this material and its container to hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.

14. Transport Information

DOT

Not regulated as dangerous goods.

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 (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 Yes

Clean Water Act (CWA) Hazardous substance

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)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
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
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

BENZYL ALCOHOL (CAS 100-51-6)	Listed.
TRIETHYLENETETRAMINE (CAS 112-24-3)	Listed.

16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings
 Health: 2
 Flammability: 1
 Physical hazard: 0

COMBAT DIAMOND-B
SDS No. RAI-MS-C-DIAMOND-B



Revision No. 1
OCTOBER 2015
SAFETY DATA SHEET

NFPA ratings

Health: 2
Flammability: 1
Instability: 0

Issue date

01-20-2011