1. Product and Company Identification

Material name COMBAT Diamond-A

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 Harmful in contact with eyes. Irritating to skin. Prolonged exposure may cause chronic effects.

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 Contact may irritate or burn eyes. Eye contact may result in corneal injury. Do not get this material in contact with eyes.

Skin Irritating to skin. Avoid contact with the skin.

Inhalation May cause cancer by inhalation. Prolonged inhalation may be harmful. Avoid breathing dust/fume/gas/mist/vapors/spray.

Ingestion Components of the product may be absorbed into the body by ingestion. Do not ingest.

Target organs Cardiac. Eyes. RESPIRATORY SYSTEM. Stomach.

Chronic effects Conjunctiva.

Signs and symptoms Corneal damage. Conjunctivitis. Irritation of eyes and mucous membranes.

Potential environmental effects May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

Hazardous components	CAS #	Percent
CARBON BLACK	1333-86-4	< 1
Non-hazardous components	**CAS #**	**Percent**
PHENOL-FORMALDEHYDE POLYMER GLYCIDYL ETHER	28064-14-4	1 - 5
2,3-EPOXYPROPYL NEODECANOATE	26761-45-5	0 - 10
PROPRIETARY INGREDIENTS	N/A	0 - 10
BISPHENOL A-(EPICHLORHYDRIN) EPOXY RESIN	25068-38-6	40 - 60
MINERAL FILLER	Mixture	40 - 60

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
Get medical attention if irritation develops and persists. For minor skin contact, avoid spreading material on unaffected skin.

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 if symptoms occur.

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 ingestion of a large amount does occur, call a poison control center immediately.

Notes to physician
In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General advice
IF exposed or concerned: Get medical advice/attention. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties
Containers or vessels exposed to sustained heat, such as in a fire situation, may have a sudden boil-over/explosion resulting from vaporization of water in the bottom of the vessel, known as a BLEVE (Boiling Liquid Expanding Vapor Explosion).

Extinguishing media

Suitable extinguishing media
Dry chemical powder. Carbon dioxide (CO2). Alcohol foam.

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. 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: Do not get water on spilled substance or inside containers. Dike far ahead of spill for later disposal. Cover with DRY earth, DRY sand, or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

Small Spills: Clean surface thoroughly to remove residual contamination. 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 allow water to get into container because of violent reaction and possible flash fire. Do not get this material in contact with eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin. Wear personal protective equipment. Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Avoid release to the environment.

Storage
Keep away from heat, sparks and open flame. Keep container tightly closed. Keep container dry. Keep out of the reach of children. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Components	Type	Value
CARBON BLACK (1333-86-4)	TWA	3.5000 mg/m3

U.S. - OSHA

Components	Type	Value
CARBON BLACK (1333-86-4)	PEL	3.5000 mg/m3

Personal protective equipment

Eye / face protection	Do not get in eyes. Chemical goggles are recommended.
Skin protection	Avoid contact with the skin. Wear suitable protective clothing.
General hygiene considerations	Do not get in eyes. Avoid contact with skin. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance	Not available.
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
Physical state	Liquid.
Form	Liquid.
pH	Not available.
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	Not available.
Relative density	Not available.
Solubility (water)	Not available.
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 at normal conditions.
Conditions to avoid	Heat, flames and sparks. Contact with incompatible materials.
Incompatible materials	Peroxides. Fluorine. Chlorine. Incompatible with oxidizing agents. This product may react with strong acids. This product may react with strong alkalies.
Hazardous decomposition products	Toxic gas. If product is burned hazardous gases such as oxides of carbon and nitrogen and various hydrocarbons may be produced.

Possibility of hazardous reactions Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components	Test Results
CARBON BLACK (1333-86-4)	Acute Oral LD50 Rat: > 8000 mg/kg

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

Local effects Irritating to skin. Contact may irritate or burn eyes.

Chronic effects Hazardous by OSHA criteria. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

Carcinogenicity Hazardous by OSHA criteria.

ACGIH Carcinogens

CARBON BLACK (CAS 1333-86-4) A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

CARBON BLACK (CAS 1333-86-4) 2B Possibly carcinogenic to humans.

12. Ecological Information

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

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)	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

Country(s) or region	Inventory name	On inventory (yes/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 WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

CARBON BLACK (CAS 1333-86-4) Listed.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

CARBON BLACK (CAS 1333-86-4) Listed: February 21, 2003 Carcinogenic.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

CARBON BLACK (CAS 1333-86-4) Listed.

16. Other Information

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

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

NFPA ratings
Health: 1
Flammability: 0
Instability: 0
Special hazards: W

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