SAFETY DATA SHEET
Anchor Seal, Inc. EPOXY HARDENER

1. Identification

1.1 Product Name: SY5233FR (NB28) (Part B)
1.2 Recommended Use: Adhesive, coating, casting, tooling & encapsulation.
Issue Date: 10/28/13
Supersedes 1/22/13
Reason for revision: New format
1.3 Manufacturer:
ANCHOR-SEAL, INC.
54 Great Republic Drive
Gloucester, MA 01930
Tel. 978-515-6004
Email: sales@anchorseal.com

1.4 In Case of Emergency: INFOTRAC: 1-800-535-5053
Outside the US and Canada, call 1-352-323-3500

2. Hazards Identification

2.1 OSHA/HCS status: This material is classified as Hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification: Corrosive, causes skin & eye burns. May be harmful in contact with skin or if swallowed. May cause sensitization by skin contact. May be harmful if swallowed. Aspiration hazard if swallowed- can enter lungs and cause damage. Dangerous for the environment. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Skin contact: Corrosive. May cause burns resulting in permanent damage. May cause skin sensitization or an allergic reaction which becomes evident on re-exposure to this material. May be absorbed through the skin.
Eye contact: Corrosive. May cause burns resulting in permanent damage. Risk of serious damage to the eyes.
Ingestion: Corrosive. May cause severe and permanent damage to mouth, throat and stomach. Harmful if swallowed.
Inhalation: Corrosive. May cause burns resulting in permanent damage. May cause irritation of nose, throat and lungs with cough, difficulty breathing or shortness of breath; or pulmonary edema (fluid in the lungs) with cough, wheezing, abnormal lung sounds, possibly progressing to shortness of breath and bluish discoloration of the skin. Repeated inhalation may cause lung damage. May cause lung sensitization, an allergic reaction, which becomes evident on re-exposure to this material.
2.1 cont.

Classification according to EC No. 1272/2008 (CLP/GHS)

Health Hazard statements:

Skin Irritation  
- **H313** May be harmful in contact with the skin.  
- **H314** Causes skin burns.  
- **H317** May cause an allergic skin reaction and sensitization.  

Eye Irritation  
- **H314** Causes eye burns  
- **H318** Causes serious eye damage  
- **H319** Causes serious eye irritation.  

Inhalation  
- **H332** Harmful if inhaled. Corrosive, may cause burns and permanent damage.  
- **H334** May cause allergy or asthma symptoms or breathing difficulties if inhaled.  

Oral Toxicity  
- **H303, H305** May be harmful if swallowed. Aspiration hazard if swallowed.  

Aquatic  
- **H412** Harmful to aquatic organisms with long lasting effects.  

H4 Classification according to Directive 67/548/EEC:

- **Xi** Irritant  
- **R36/38, R43**  
- **N**  
- **R51/53**  

2.2 Label Elements

Hazard pictograms

Signal Word: Warning Warning Danger

2.3 Precautionary statements:

- **P261** Avoid breathing dust/fume/gas/mist/vapors/spray  
- **P264** Wash thoroughly after handling.  
- **P273** Avoid release to the environment.  
- **P280** Wear eye protection / face protection, protective gloves & clothing.  
- **P284** In case of inadequate ventilation, wear respiratory protection.  
- **P302 + P352** **IF ON SKIN:** Wash immediately with plenty of soap and water.  
- **P333 + P313** If skin irritation or rash occurs: Get medical advice / attention.  

See toxicological information (Section 11)

**GENERAL INFORMATION:** Read the entire SDS for a more thorough evaluation of the hazards.
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3. Composition Information

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isophoronediamine</td>
<td>2855-13-2</td>
</tr>
<tr>
<td>Concentration of composition has been withheld as a Trade Secret</td>
<td></td>
</tr>
</tbody>
</table>

4. First Aid Measures

4.1 Eye contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of running tepid water for 15 minutes, occasionally lifting the upper and lower eyelids. If effects occur get medical attention as appropriate.

   Skin contact: Wash immediately with warm soapy water. Get medical attention if irritation develops. Wash clothing or personal items that cannot be decontaminated.

   Inhalation: P304, P340 Move exposed person to fresh air and keep comfortable for breathing.

   If not breathing or if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen clothing such as collar, tie, belt or waistband.

   Ingestion: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

   Notes to physician: No specific treatment. Treat symptomatically. Call Poison Control Center if large quantities have been ingested.

4.2 Symptoms of exposure:

   Eye contact: Irritation and redness, pain.

   Skin contact: Irritation, redness, itching.

   Inhalation: Dizziness, difficulty breathing if fumes are highly concentrated.

   Ingestion: No information.

   Notes to physician: To the best of our knowledge, experiences about acute systemic health effects in human beings are not available. No specific antidote known. Symptomatic treatment. If necessary, administer activated charcoal (10-20g) and sodium sulfate (20g).

5. Fire-Fighting Measures

   NFPA Flammable classification: Combustible liquid 111B

   Flash point: >110°C

   5.1 Extinguishing Media

      Suitable: Water fog, carbon dioxide, foam, dry chemical.

      Not Suitable: None

   5.2 Special hazards: Combustion products may include: carbon oxides, nitrous gases and ammonia.

5.3 Special protective actions for fire fighters: Use protective fire fighting clothing and positive pressure self-contained breathing apparatus (SCBA) to protect against potential harmful and/or irritating fumes. Do not use high volume water jet as this may spread the area of the fire. Use water spray to cool unopened containers.

6. Accidental Release Measures

6.1 Personal precautions: Isolate area; keep unnecessary and unprotected personnel away from spill area. Avoid contact with skin, eyes and clothing. Use appropriate safety equipment. No health effects expected from the cleanup of this material if contact can be avoided.

6.2 Environmental precautions: Avoid disposal of spilled material and runoff and contact with soil, waterways, drains and sewers.

6.3 Methods for cleaning up: Contain and absorb large spills with an inert, non-flammable absorbent carrier (such as earth, sand or clay). Shovel into labeled open-top drums or plastic bags for further decontamination if necessary. Wash the spillage area clean with liquid decontaminant. (See section 13 for disposal considerations). Notify applicable government authorities if release is reportable.
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7. Handling and Storage
7.1 Precautions for safe handling: Avoid personal contact with the product. Use only with adequate ventilation to ensure that the occupational exposure limit is not exceeded. Regularly monitor the efficiency of the ventilation system. Avoid the formation and breathing of aerosols, mists and vapors. (See section 8 Exposure control for details). Keep stocks of de-contaminant readily available.
7.2 Storage: Keep containers tightly closed and store in a cool, dry well ventilated area.

8. Exposure controls/personal protection
8.1 Exposure parameters: None established.
8.2 Engineering controls: Ventilation through local exhaust if appropriate.
   Eye/face protection: Safety glasses, goggles, face mask as appropriate.
   Skin & hand protection: Protective clothing as necessary to guard against product contact. PVC, neoprene or nitrile rubber gloves.
   Respiratory protection: Not needed under normal use conditions under adequate ventilation.
   Other protective equipment: Eye wash stations and emergency showers should be available. The type and degree of personal protective equipment will depend on the specific work operation.
8.3 Environmental exposure controls: None established.

9. Physical and chemical properties
9.1 Information on basic physical and chemical properties.
   Appearance : Liquid
   Color : Blue
   Type of odor : Ammonia or amine
   Vapor pressure : ca. 0.02 hPa (20°C)
   Vapor density : Heavier than air
   Boiling point : >200°C
   Flash point : >100°C
   pH : Alkaline
   Auto ignition temperature : >300°C
   Specific gravity : 0.93 grams / cc
   Water solubility : Partial

10. Stability and Reactivity
10.1 Reactivity: Reacts with strong acids and strong oxidizing agents.
10.2 Stability: Stable at room temperature.
10.3 Hazardous polymerization: Will not occur by itself. Masses of more than one pound of product plus an epoxy resin will cause irreversible polymerization with considerable heat build up.
10.4 Conditions to avoid: Keep away from heat and sources of ignition. Do not smoke.
10.5 Incompatible materials: See conditions to avoid.
10.6 Hazardous decomposition products: Uncontrolled exothermic reaction of epoxy resin releases carbon monoxide, carbon dioxide and ammonia.
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11. Toxicological Information
11.1 Acute oral toxicity: LD50 (rat): >1,030 mg/kg.
    Acute dermal toxicity: LD50 (rat) >2,000 mg/kg
    Acute inhalation toxicity: LC50 (rat) >5 mg/l / 4h / aerosol method.
    Skin irritation: Rabbit, corrosive, subcategory 1C
    Eye irritation: Rabbit, risk of serious damage to eyes.
    Product sensitization: Guinea pig, may cause sensitization by skin contact.

12. Ecological Information
12.1 Toxicity: LC50 Leuciscus idus: >110 mg/l / 96 h.
12.2 Persistence and biodegradability: Based on stringent OECD test guidelines, this material
    cannot be considered as readily biodegradable; however, these results do not necessarily mean that the
    material is not biodegradable under environmental conditions.

13. Disposal Considerations
13.1 Waste treatment methods: Do not dump into any sewers, on the ground, or into any body of
    water. Significant quantities of waste product residues should be processed in a suitable effluent
    treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal
    contractor. Disposal of this product, solutions and any by-products should at all times comply with the
    requirements of environmental protection and waste disposal legislation and any regional local
    requirements. Incineration is the preferred method of disposal.
    Container disposal: Drain container of all residual material prior to disposal.

14. Transport Information
14.1 DOT Road/Rail: Class 8, UN 2289, PG III, Label: Corrosive
14.2 Proper shipping name: Isophoronediamine

14.3 Sea transport IMDG-Code: Class 8 UN2289 PG III
14.4 EmS F-A, S-B
14.5 Proper shipping name: Isophoronediamine

14.6 Air Transport ICAO-TI/IATA-DGR: Class 8 UN2289 PG III
14.7 Proper shipping name: Isophoronediamine
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15. Regulatory Information

15.1 Safety health and environmental regulations/legislation:

SARA Title III Section 311/312 (40CFR370): Acute health hazard.
SARA Title III Section 313 (40CFR372): No reportable components.
CERCLA Status (40CFR302): No reportable quantity components.
TSCA Inventory status: None listed.
OSHA/NTP/IARC Carcinogen Status: Not listed.
Chemicals known to the state of California to cause Cancer or reproductive toxicity: None
Pennsylvania (Worker and Community Right-to-Know Act): Hazardous Substances List and/or Environmental Hazardous Substance List and/or Special Hazardous Substance List: To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

16. Other Information

HMIS/NFPA rating: Health: 3 Fire: 1 Reactivity: 0
(Personal protective equipment selection is best assigned by the user after performing a hazard assessment on the product as it is to be used in the specific work process).