SAFETY DATA SHEET
Anchor Seal, Inc. EPOXY HARDENER

1. Identification

1.1 Product Name: SY5233FR (1K4) (Part B)
1.2 Material Uses: Component of an Epoxy System
Issue Date: 9/16/14
Supersedes 12/1/10
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
Classification: Warning: Toxic if inhaled. Harmful in contact with the skin or if swallowed.
Inhalation causes headaches, dizziness, drowsiness and nausea and may lead to unconsciousness.
Causes respiratory tract, eye and skin irritation. May cause allergic respiratory and skin
reaction.
Skin contact: Harmful in contact with the skin. Severely irritating to the skin. May cause skin
sensitization or an allergic reaction which becomes evident on re-exposure to this material.
Eye contact: Severely irritating to the eyes. Risk of serious damage to eyes. Direct contact with the
eyes can cause irreversible damage, including blindness.
Ingestion: Harmful if swallowed. Can cause central nervous system (CNS) depression.
Inhalation: Toxic if inhaled. Can cause central nervous system (CNS) depression. Severely irritating
to the respiratory system. May cause lung sensitization, an allergic reaction, which becomes evident
on re-exposure to this material. Exposure can produce sensorimotor effects.
2.1 cont. 
Classification according to EC No. 1272/2008 (CLP/GHS) 

**Health Hazard statements:** 

**Skin Irritation** H315 Causes skin irritation and redness.  
H317 May cause an allergic skin reaction and sensitization. 

**Eye Irritation** H319 Causes serious eye irritation and redness. 

**Inhalation** H331 Toxic if inhaled.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness 

**Oral Toxicity** H302 Harmful if swallowed. 

**Aquatic** h402 Suspected to be harmful to aquatic life but no data is available on the product. 

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**H4 Classification according to Directive 67/548/EEC:** 

<table>
<thead>
<tr>
<th>Xi</th>
<th>Irritant</th>
<th>R36/38, R43</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td></td>
<td>R51/53</td>
</tr>
</tbody>
</table>

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2.2 Label Elements (EC 1272/2008) 

**Hazard pictograms:**

![Image of danger symbol]

**Signal word:** Warning 

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>Modified polyethylene polyamine adduct</td>
<td>(proprietary)</td>
</tr>
<tr>
<td>4,4’-Isopropylidenediphenol</td>
<td>80-05-7</td>
</tr>
<tr>
<td>Tetraethylenepentamine</td>
<td>112-57-2</td>
</tr>
<tr>
<td>Diethylenetriamine</td>
<td>111-40-0</td>
</tr>
</tbody>
</table>

Mixtures: Concentration of composition has been withheld as a Trade Secret

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. Chemical burns must be treated promptly by a physician.

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

Inhalation: 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, watering, pain.

Skin contact: Irritation, redness, itching.

Inhalation: Coughing, wheezing, dizziness, visual disturbances, difficulty breathing if fumes are concentrated.

Ingestion: Harmful if swallowed. May cause nausea, vomiting, dizziness, drowsiness, headache or unconsciousness. Can cause Central Nervous System (CNS) depression.

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.

5. Fire-Fighting Measures

NFPA Flammable classification: Combustible liquid 111B

Flash point: >200F

5.1 Extinguishing Media

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

Not Suitable: Do not use water jet. Product will float and can reignite on the surface of the water.

5.2 Special hazards: Combustion products may include: carbon oxides and nitrogen oxides.

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 of Material

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.
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.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color</td>
<td>Amber</td>
</tr>
<tr>
<td>Type of odor</td>
<td>Ammonia or amine</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>&lt; 13.3 Pa @ 20°C (68°F)</td>
</tr>
<tr>
<td>Vapor density</td>
<td>N/D</td>
</tr>
<tr>
<td>Boiling point</td>
<td>&gt;200°C</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt;200°F</td>
</tr>
<tr>
<td>pH</td>
<td>Alkaline</td>
</tr>
<tr>
<td>Auto ignition temperature</td>
<td>N/D</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>0.97 grams / cc</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Partial</td>
</tr>
</tbody>
</table>
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:** Copper, copper alloys, organic absorbents (sawdust) ketones.

10.6 **Hazardous decomposition products:** Uncontrolled exothermic reaction with epoxy resin releases carbon monoxide, carbon dioxide, nitrogen compounds and ammonia.

11. **Toxicological Information**

11.1 **Acute oral toxicity:** LD50 (rat): >2,800 mg/kg.

11.2 **Acute dermal toxicity:** LD50 (rabbit) >700 mg/kg

11.3 **Acute inhalation toxicity:** No data.

11.4 **Skin irritation:** Skin irritant.

11.5 **Eye irritation:** Eye irritant.

11.6 **Product sensitization:** May cause sensitization by skin contact or inhalation.

12. **Ecological Information**

12.1 **Toxicity to fish:** Probably toxic. No data available on the product.

12.2 **Toxicity to microorganisms:** No data available on the product.

12.3 **Persistence and biodegradability:** No known significant effects or critical hazards.

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.

14. **Transport Information:**

14.1 **DOT Road/Rail:** CFR/TDG Non-regulated. Label: None

14.2 **Proper shipping name:** Plastic Synthetic

14.3 **Sea transport IMO/IMDG:** Non-regulated

14.8 **Air Transport IATA/ICAO:** Non-regulated
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15. Regulatory Information

15.1 Safety health and environmental regulations/legislation:

HCS Classification: Toxic material, irritating material, sensitizing material, target organ effects.

SARA Title III Section 311/312 (40CFR370): Immediate (acute) health hazard, delayed (chronic) health hazard.

SARA Title III Section 313 (40CFR372): This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and Subpart C-Supplier Notification Requirement of 40 CFR Part 372. 4,4’-Isopropylidenediphenol 80-05-7 (9.00%)


TSCA Inventory status: None listed.

OSHA/NTP/IARC Carcinogen Status: Not listed.

California Prop. 65: None required.

Pennsylvania (Worker and Community Right-to-Know Act): Hazardous Substances List and/or Environmental Hazardous Substance List and/or Special Hazardous Substance List:
4,4’-isopropylidenediphenol, Diethylenetriamine, Tetraethylenepentamine.

Massachusetts RTK Substances The following components are listed: 4,4’-isopropylidenediphenol, Diethylenetriamine, Tetraethylenepentamine.

New Jersey RTK Hazardous Substances. The following components are listed. 4,4’-isopropylidenediphenol, Diethylenetriamine, Tetraethylenepentamine.

16. Other Information

HMIS/NFPA rating: Health: 2  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).