

Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

Product Name: Acrylamide

Chemical Formula: C₃H₅NO

Manufacturer:

Shandong Polymer Bio-chemicals Co.,Ltd.

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Post: 257081

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Section 2 - Composition, Information on Ingredients

Composition: Acrylamide

Concentration:>98%

CAS No: 79-06-1

UN NO:2074

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white solid.

Warning! Harmful if swallowed. Causes eye, skin, and respiratory tract irritation. May be harmful if absorbed through skin or if inhaled. May cause nervous system effects. Light sensitive.

Target Organs: Eyes, nervous system, reproductive system, skin.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation. May be absorbed through the skin.

Ingestion: Harmful if swallowed. May cause irritation of the digestive tract. Like acrylamide, may cause central, peripheral, and autonomic nervous system effects.

Inhalation: Causes respiratory tract irritation. Acrylamide, a similar compound, can be absorbed through the lungs and overexposure will produce signs of neurotoxicity. Inhalation studies with methylenebisacrylamide have produced acute pulmonary edema in animals.

Chronic: Adverse reproductive effects have been reported in animals. Prolonged or repeated exposure affects the nervous system.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Skin: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes.

Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Combustion generates toxic fumes. Use water spray to keep fire-exposed containers cool. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion Limits, Lower: Not available.

Upper: Not available.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid breathing dust.

Storage: Store in a tightly closed container. Keep refrigerated. Keep away from polymerization catalysts. Store away from heat, oxidizing agents, acids, alkalis, and sunlight.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's

eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Appearance: white

Odor: none reported

pH: 6-8

Vapor Pressure: Negligible.

Vapor Density: 5.31 (air=1)

Evaporation Rate: Negligible.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: > 300 deg C

Decomposition Temperature: Not available.

Solubility: Slightly soluble.

Specific Gravity/Density: 1.2 (water=1)

Molecular Formula: C₃H₅NO

Molecular Weight:

Section 10 - Stability and Reactivity

Chemical Stability: Stable. However, may decompose if heated. May polymerize on exposure to light.

Conditions to Avoid: Light, heat.

Incompatibilities with Other Materials: Strong oxidizing agents, strong reducing agents, strong acids, strong bases.

Hazardous Decomposition Products: Carbon monoxide, oxides of nitrogen, carbon dioxide, ammonia and/or derivatives.

Hazardous Polymerization: May occur.

Section 11 - Toxicological Information

Epidemiology: No information available.

Teratogenicity: Administration of BAC by gavage to pregnant mice produced an increase in skeletal variations among fetuses at maternal doses of 10 mg/kg/d. Maternal toxicity was not encountered below 30 mg/kg/d.

Reproductive Effects: Methylenebisacrylamide (MBA) was found to have greater testicular effects than detectable neurotoxic effects in mice. MBA showed dominant lethal reproductive

toxicity in F0 males (fewer live pups/litter, more resorptions) and females (lowered F1 pupweight) at exposure levels that did not affect body weight and had no effect on grip strength or histopathologic measures of neurotoxicity.

Mutagenicity: See actual entry in RTECS for complete information.

Neurotoxicity: Neurotoxic effects have occurred in experimental animals.

Other Studies:

Section 12 - Ecological Information

No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Section 14 - Transport Information

Shipping name: Acrylamide

Hazard class: 6.1

Packing group: 25 kg plastic-paper compound bags or tank container.

Section 15 - Regulatory Information

Risk Phrases:

Harmful by inhalation, in contact with skin and if swallowed.

Irritating to eyes, respiratory system and skin.

Safety Phrases:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Wear suitable protective clothing and gloves.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Section 16 - Additional Information

MSDS Creation Date: 2007/11/

Revision Date:

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.