

AZODICARBONAMIDE

MATERIAL SAFETY DATA SHEET

Hazardous according to International Criteria

Date of Issue: April 2015

1. CHEMICAL PRODUCT AND SUPPLIER IDENTIFICATION

Product Name : AZODICARBONAMIDE

Synonymes : 1,1'-AZOBISFORMAMIDE C-C'-AZODI(FORMAMIDE)

2. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportions (%)	EINECS#
1,1'-AZOBISFORMAMIDE	123-77-3	> 97	204-650-8

Risk Phrases: 5

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance: orange-red.

Warning! May cause eye and skin irritation. May cause respiratory and digestive tract irritation.

Self-reactive substance.

Target Organs: None.

Potential Health Effects

Eye: Dust may cause mechanical irritation.

Skin: May cause skin irritation.

Ingestion: May cause irritation of the digestive tract. The toxicological properties of this substance have not been fully investigated.

Inhalation: May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

Chronic: No information found.

4. FIRST AID MEASURES

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water.

Never give anything by mouth to an unconscious person. Get medical aid immediately.

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Antidote: None reported.

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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. May be ignited by heat, sparks, and flame. Vapors or dust may form explosive mixture with air. May burn violently. Decomposition may be self-accelerated and produce large amounts of gas. Self-decomposition or self-ignition may be triggered by heat, chemical reaction, friction or impact.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or regular foam. Cool containers with flooding quantities of water until well after fire is out. For large fires, flood fire area with water from a distance.

6. ACCIDENTAL RELEASE MEASURES

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

Spills/Leaks: Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions. Remove all sources of ignition. Provide ventilation.

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. Keep container tightly closed. Avoid ingestion and inhalation.

Storage:

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.

Exposure Limits:

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Azodicarbonamide	none listed	none listed	none listed

OSHA Vacated PELs:

Azodicarbonamide: No OSHA Vacated PELs are listed for this chemical.

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 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Crystalline powder
Appearance: orange-red
Odor: None reported.
pH: 7 - 8
Vapor Pressure: Not available.
Vapor Density: Not available.
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: Not available.
Freezing/Melting Point: 225 deg C dec
Autoignition Temperature: Not available.
Flash Point: 225 deg C (437.00 deg F)
NFPA Rating: (est.) Health: 1; Flammability: 1; Reactivity: 1
Explosion Limits, Lower: Not available.
Upper: Not available.
Decomposition Temperature: 225 deg C
Solubility: Soluble in hot water.
Specific Gravity/Density:
Molecular Formula: C₂H₄N₄O₂
Molecular Weight: 116.08

10. STABILITY AND REACTIVITY

Chemical Stability:
Stable. However, may decompose if heated.
Conditions to Avoid:
Incompatible materials, dust generation, excess heat, strong oxidants.
Incompatibilities with Other Materials:
Oxidizing agents.
Hazardous Decomposition Products:
Carbon monoxide, irritating and toxic fumes and gases, ammonia and/or derivatives, nitrogen.
Hazardous Polymerization: Has not been reported.

11. TOXICOLOGICAL INFORMATION

RTECS#: CAS# 123-77-3: LQ1040000
LD50/LC50: Not available.
Carcinogenicity: Azodicarbonamide - Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology: No information available.
Teratogenicity: No information available.
Reproductive Effects: No information available.
Neurotoxicity: No information available.
Mutagenicity: No information available.
Other Studies: No data available.

12. ECOLOGICAL INFORMATION

Ecotoxicity: No data available. No information available.

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Ecotoxicity: No data available. No information available.

Environmental: No information available.

Physical: Hydrolyzes at high temperatures to nitrogen, carbon dioxide and ammonia.

Other: No information available.

13. DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. TRANSPORT INFORMATION

IATA / IMO / RID/ADR:

Shipping Name: AZODICARBONAMIDE

Hazard Class: 4.1

UN Number: 3242

Packing Group: II

15. REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available.

Risk Phrases:

R 5 Heating may cause an explosion.

Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.

S 28A After contact with skin, wash immediately with plenty of water.

S 37 Wear suitable gloves.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 123-77-3: 1

16. ADDITIONAL INFORMATION

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