



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name AMMONIUM IODIDE, REAGENT (ACS)
Catalog # 842
Version # 02
Revision date 10-Mar-2010
CAS # 12027-06-4
Manufacturer information GFS Chemicals, Inc.
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2. Hazards Identification

Emergency overview Irritating to eyes.
OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects
Routes of exposure Eye contact.
Eyes Causes eye irritation.
Skin May cause skin irritation.
Inhalation May be harmful by inhalation. May cause irritation to the respiratory system.
Ingestion May be harmful if swallowed.
Signs and symptoms Prolonged exposure may cause skin rash, headache or runny nose. Severe exposure may cause redness or black and blue spots. Internal- weakness, anemia, loss of weight, or depression.
Potential environmental effects Ecological injuries are not known or expected under normal use.

3. Composition / Information on Ingredients

Components	CAS #	Percent
AMMONIUM IODIDE	12027-06-4	90 - 100

Composition comments

US ACGIH Threshold Limit Values: Time Weighted Average (TWA): mg/m³ & ppm

AMMONIUM IODIDE 12027-06-4 Inhalable fraction and vapor. 0.01 PPM

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 if irritation persists after washing.

Skin contact Rinse skin with water/shower. Get medical attention if irritation develops or persists.

Inhalation If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

Ingestion Rinse mouth. Do not induce vomiting without medical advice. If ingestion of a large amount does occur, call a poison control center immediately.

General advice Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties	Will sublime in fire conditions. The product is not flammable. Not a fire hazard.
Extinguishing media	
Suitable extinguishing media	Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂). Use extinguishing agent suitable for type of surrounding fire.
Protection of firefighters	
Protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers. Cool containers exposed to flames with water until well after the fire is out.
Specific methods	In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. 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.
Methods for containment	Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Following product recovery, flush area with water.

7. Handling and Storage

Handling	Avoid contact with eyes. Use only with adequate ventilation. Wear personal protective equipment. Wash thoroughly after handling. Handle and open container with care.
Storage	Keep container tightly closed. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Engineering controls	Ensure adequate ventilation, especially in confined areas.
Personal protective equipment	
Respiratory protection	No personal respiratory protective equipment normally required.
Hand protection	Rubber gloves.
Eye / face protection	Avoid contact with eyes. Wear chemical goggles.
Skin protection	Not normally needed.
General hygiene considerations	Avoid contact with eyes. Avoid contact with skin.
General	Ensure that eyewash stations and safety showers are close to the workstation location.

9. Physical & Chemical Properties

Appearance	Crystalline.
Color	White.
Odor	Odorless.
Odor threshold	Not available.
Physical state	Solid.
Form	Solid.
pH	4.6 (0.1 M Solution)
Melting point	1023.8 °F (551 °C) (sublimes)
Freezing point	Not available.
Boiling point	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability	Not available.

Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor pressure	0.1333 kPa at 210.9°C
Vapor density	Not available.
Specific gravity	2.514
Relative density	2.5137 g/cm ³ estimated
Solubility (water)	soluble
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Percent volatile	0 % estimated
Molecular weight	144.9600 g/mol
Molecular formula	NH ₄ I

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions. Turns yellow to brown on exposure to air or light. strongly hygroscopic
Conditions to avoid	Exposure to air or moisture over prolonged periods.
Incompatible materials	Water. Acids.
Hazardous decomposition products	Reaction with oxidizers may yield fumes of iodine.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Acute effects	The toxicological properties of this material have not been fully investigated and its handling and use may be hazardous.
Local effects	Irritating to eyes.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
US ACGIH Threshold Limit Values: A4 carcinogen	
AMMONIUM IODIDE	12027-06-4 A4 Not classifiable as a human carcinogen.

12. Ecological Information

Ecotoxicity	This product has no known eco-toxicological effects.
Persistence and degradability	Not available.

13. Disposal Considerations

Disposal instructions	This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Not applicable.

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.
All components are on the U.S. EPA TSCA Inventory List.
CERCLA/SARA Hazardous Substances - Not applicable.

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other Information

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

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

NFPA ratings Health: 2
Flammability: 0
Instability: 0

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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This data sheet contains changes from the previous version in section(s): This document has undergone significant changes and should be reviewed in its entirety.