

Safety Data Sheet **AMMONIUM IODIDE**

SDS no. CZGT2R96 • Version 1.0 • Date of issue: 2022-10-24

SECTION 1: Identification

GHS Product identifier

Product name AMMONIUM IODIDE

Recommended use of the chemical and restrictions on use

Iodides, medicine (expectorant), photography and laboratory reagent.

Supplier's details

Name ChemSupply Australia Pty Ltd
Address 38-50 Bedford Street
5013 Gillman South Australia
Australia

Telephone 08 8440 2000
email www.chemsupply.com

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Serious eye damage/eye irritation, Cat. 2A
- Skin corrosion/irritation, Cat. 2
- Specific target organ toxicity following single exposure, Cat. 3

GHS label elements, including precautionary statements

Pictograms



Signal word

Warning

Hazard statement(s)

H302
H315
H319
H335
H336

Harmful if swallowed
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation
May cause drowsiness or dizziness

Precautionary statement(s)

P261
P264
P270
P271
P280
P301+P312
P302+P352
P304+P340
P305+P351+P338

Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell,
IF ON SKIN: Wash with plenty of water/soap
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a POISON CENTER/doctor/physician if you feel unwell.
Rinse mouth.
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/container to an approved waste disposal facility

P312
P330
P332+P313
P337+P313
P362+P364
P403+P233
P405
P501

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight: 144.94

Components

Component	Concentration
Ammonium iodide (CAS no.: 12027-06-4; EC no.: 234-717-7)	99 - 100 % (weight)
CLASSIFICATIONS: Serious eye damage/eye irritation, Cat. 2A; Skin corrosion/irritation, Cat. 2; Specific target organ toxicity following single exposure, Cat. 3. HAZARDS: H315 - Causes skin irritation; H335 - May cause respiratory irritation; H336 - May cause drowsiness or dizziness.	

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	Maintain eyewash fountain and drench facilities in work area.
If inhaled	If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.
In case of skin contact	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water.
In case of eye contact	If in eyes wash out immediately with water.
If swallowed	If swallowed, do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically based on judgement of doctor and individual reactions of the patient.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam

Specific hazards arising from the chemical

Irritating and toxic fumes of hydrogen iodide (HI), ammonia, iodine, nitrogen oxides (NO_x) and products of pyrolysis.
Runoff may pollute waterways. Fire or heat may produce irritating, poisonous and/or corrosive fumes.

Special protective actions for fire-fighters

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation. For personal protection see section 8.

Methods and materials for containment and cleaning up

Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal. Contain spillage, and transfer to a container for disposal according to local / national regulations (see section 13)

SECTION 7: Handling and storage

Precautions for safe handling

Avoid ingestion and inhalation of dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Minimize dust generation and accumulation. Keep container tightly closed. Use with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Wear suitable protective clothing. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Protect against physical damage. Handle under an inert atmosphere. Store protected from air. Keep out of light to improve shelf-life.

Conditions for safe storage, including any incompatibilities

Store in a tightly closed container, in a cool, dry, well-ventilated area away from incompatible substances. Air, light and moisture sensitive. Do not expose to air. Store protected from moisture and light. Store under an inert atmosphere. Store protected from heat and sources of ignition. Keep away from foodstuffs. Protect against physical damage.

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits. If the engineering controls are not sufficient to maintain concentrations of vapours/mists below the exposure standards, suitable respiratory protection must be worn.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

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The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Normally not required but if in doubt ensure hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid
Appearance	Colourless to white or pale yellow crystals, crystalline powder or granules.
Color	No data available.
Odor	Odourless.
Odor threshold	No data available.
Melting point/freezing point	551°C (sublimes)
Boiling point or initial boiling point and boiling range	235°C (in Vacuum)
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	Can explode in contact with bromine trifluoride.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	4.5-6.5 (50 g/l, H ₂ O).
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Very soluble (1542 g/l (20°C)) [13] Solubility in Organic Solvents: Very soluble in acetone and ammonia; soluble in alcohol, glycerol and methanol; slightly soluble in ether.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	1.3 hPa (1 mm Hg) @ 210.9 °C
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 2.514
Relative vapor density	No data available.

Particle characteristics

No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

Sharp saline taste.

SECTION 10: Stability and reactivity

Reactivity

Stable under normal conditions of storage and handling.

Chemical stability

Air-sensitive. Hygroscopic. May decompose on exposure to light.

Possibility of hazardous reactions

Reaction with bromine trifluoride may be explosive.
Reacts violently with interhalogens.

Conditions to avoid

Incompatible materials, light, dust generation, exposure to air, moist air or water, excess heat, strong oxidants.

Incompatible materials

Strong bases, bromine trifluoride, calomel, chloral hydrate, alkaloid salts, metallic salts, potassium chlorates, strong oxidizing agents, bromine trichloride, iodine heptafluoride, potassium, water/moisture, air, acids, light, interhalogens.

Hazardous decomposition products

Irritating and toxic fumes of hydrogen iodide (HI), ammonia, iodine, and nitrogen oxides (NO_x).

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Medicinal grade is used as a diuretic and expectorant. Ingestion may cause irritation of the digestive tract, nausea, vomiting and abdominal pain. May cause temporary enlargement of salivary glands or lymph glands. Large doses can cause mental depression and insomnia. Chronic ingestion of iodides during pregnancy has resulted in fetal death, severe goiter, and cretinoid appearance of the newborn.

Inhalation will irritate the mucous membranes, nose, throat, upper respiratory tract and lungs. Inhalation of large amounts may affect the central nervous system causing spasms, confusion, tremors, slurred speech, ataxia, stupor and coma.

Skin corrosion/irritation

May cause skin irritation, redness or itching.

Serious eye damage/irritation

Eye contact will cause stinging, blurring, tearing and irritation.

Respiratory or skin sensitization

Not expected to be a respiratory or skin sensitiser.

Germ cell mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

Not considered to be a carcinogenic hazard.

Reproductive toxicity

Not considered to be toxic to reproduction.

Specific target organ toxicity (STOT) - single exposure

May cause damage to organs (respiratory system)

Specific target organ toxicity (STOT) - repeated exposure

Not expected to cause toxicity to a specific target organ.

Aspiration hazard

Not expected to be an aspiration hazard.

Additional information

Chronic Effects: Prolonged exposure to iodides through ingestion may produce iodism in sensitive individuals. Symptoms could include salivation, metallic taste, coryza, running nose, sneezing, conjunctivitis, headache, fever, burning in the mouth and throat, soreness of teeth and gums, laryngitis, bronchitis, stomatitis, parotitis, oedema of glottis, irritation of the mucous membranes and skin rashes. In severe cases the skin may show pimples, boils, redness, black and blue spots, hives and blisters. Prolonged or repeated skin contact may cause dermatitis. Iodides are readily diffused across the placenta. Chronic ingestion of iodides during pregnancy has resulted in fetal death, severe goiter, and cretinoid appearance of the newborn.

SECTION 12: Ecological information

Toxicity

No data available.

Persistence and degradability

No data available.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

Results of PBT and vPvB assessment

No data available.

Endocrine disrupting properties

No data available.

Other adverse effects

No data available.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: NS

SECTION 16: Other information

Further information/disclaimer

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