

SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

Version: 2022
Date Updated: December 31, 2022

SECTION 1. ----- PRODUCT AND COMPANY IDENTIFICATION -----

Product Name	Ammonium Persulfate (APS)
Product Code(s)	AB0072
Recommended Use	Strictly For Laboratory Research Use Only Not for Human or Animal Drug Use
Supplier	Bio Basic Asia Pacific Pte Ltd.
Address	2 International Business Park Road Strategy #01-04, Singapore 609930
Telephone	(+65) 6954 2519 (+65) 6491 5938
Email	sg@biobasic-asia.com

SECTION 2. ----- HAZARDS IDENTIFICATION -----

GHS Classification in accordance with Hazardous Products Regulations (HPR) (SOR/2015-17)

Oxidizing solids (Category 3), H272
Acute Toxicity, Oral (Category 4), H302
Skin Irritation(Category 2), H315
Eye irritation (Category 2A), H319
Respiratory sensitization (Category 1), H334
Skin sensitization (Category 1), H317
Specific target organ toxicity – single exposure (Category 3)
Respiratory system, H335
Short-term (acute) aquatic hazard (Category 3), H402
For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H272	May intensify fire; oxidizer
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H402	Harmful to aquatic life

Precautionary statement(s)

Prevention

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220	Keep away from clothing and other combustible materials
P261	Avoid breathing dust/fume/gas/mist/vapours/spray
P264	Wash skin thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P271	Use only outdoors or in a well-ventilated area.

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P272 Contaminated work clothing should not be allowed out of the workplace
 P273 Avoid release to the environment
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection
 P284 Wear respiratory protection

Response

P301+P312+P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth
 P302+P352 IF ON SKIN: Wash with plenty of water
 P304+P340+P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P333+P313 If skin irritation or rash occurs: Get medical advice/ attention
 P337+P313 If eye irritation persists: Get medical advice/attention
 P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.
 P362+P364 Take off contaminated clothing and wash it before reuse
 P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish

Storage

P403+P235 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up

Disposal

P501 Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

Chemical Name	EC-No.	CAS-No.	Weight %
Ammonium Persulfate	231-786-5	7727-54-0	<100

SECTION 4. ----- FIRST-AID MEASURES -----

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention.

In case of skin contact

Remove contaminated clothing and shoes. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water for 15 minutes. Remove any contact lenses. Check for and remove any contact lenses. Continue to wash for at least 10 minutes. Get medical attention.

If swallowed

If material has been swallowed and the exposed person is conscious, give large quantities of water to drink. Rinse mouth with water. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. Call a physician.

Most important symptoms and effects, both acute and delayed

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The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5. ----- FIRE FIGHTING MEASURES -----

Conditions of flammability

No data available

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special hazards arising from the substance or mixture

Nitrogen oxides (NO_x), Sulfur oxides

Container explosion may occur under fire conditions.

Not combustible.

Has a fire-promoting effect due to release of oxygen.

Ambient fire may liberate hazardous vapours.

Advice for firefighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus with a full face-piece operated in positive pressure mode. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

Further information

May intensify fire; oxidizer. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. ----- ACCIDENTAL RELEASE MEASURES -----

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

Reference to other sections

For disposal see section 13.

SECTION 7. ----- HANDLING AND STORAGE -----

Precautions for safe handling

Work under hood. Do not inhale substance/mixture.

Keep away from open flames, hot surfaces and sources of ignition.

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.

Conditions for safe storage, including any incompatibilities

Tightly closed. Keep locked up or in an area accessible only to qualified or authorized persons. Do not store near combustible materials.

Moisture sensitive.

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Storage class (TRGS 510): 5.1B: Oxidizing hazardous materials

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated.

SECTION 8. - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - -

Control Parameters

Components with workplace control parameters

Components	CAS-no.	Value	Control Parameters	Basis
Ammonium Peroxodisulfate	7727-54-0	TWA	0.1 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	0.1 mg/m ³	Canada. British Columbia OEL
		TWA	0.1 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
Remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required			

Exposure limits

No data available

Engineering measures

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels low.

Personal protective equipment

Eye/face protection

Avoid contact with eyes. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves

Full contact material: Nitrile rubber
 Minimum layer thickness: 0.11mm
 Break through time: 480min
 Material tested: KCL 741 Dermatrill® L

Splash contact material: Nitrile rubber
 Minimum layer thickness: 0.11mm
 Break through time: 480min
 Material tested: KCL 741 Dermatrill® L

Body Protection

Wear protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Required when dusts are generated.
 Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection System.

Hygiene Measures

No data available

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Control of environmental exposure

Prevent product from entering drains.

SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----

Information on basic physical and chemical properties

Appearance	Form: Powder Colour: White
Odour	No data available
Odour Threshold	No data available
pH	3.2 at 100g/l at 20°C (68°F)
Melting point/freezing point	120°C (Decomposition)
Initial boiling point and boiling range	Decomposes below the boiling point
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available

SECTION 10. -----STABILITY AND REACTIVITY -----

Reactivity

No data available

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) . May decompose on exposure to moist air or water.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

No data available

Hazardous decomposition products

In the event of fire: see section 5

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SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

Acute toxicity

LD50 Oral - Rat - 689mg/kg

Inhalation: No data available

LD50 Dermal - Rat - 2,000mg/kg

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

Eyes - Rabbit

Result: Mild eye irritation (OECD Test Guideline 405)

Respiratory or skin sensitization

Sensitization - Guinea pig

Result: Causes sensitization. (OECD Test Guideline 406)

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause respiratory irritation

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: SE0350000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12. ----- ECOLOGICAL INFORMATION -----

Toxicity

Toxicity to fish

LC50 - *Oncorhynchus mykiss* (rainbow trout) - 76mg/l - 96h

Toxicity to *daphnia* and other aquatic invertebrates

EC50 - *Daphnia magna* (Water flea) - 120mg/l - 48h

Persistence and degradability

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

No data available

Other adverse effects

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No data available

SECTION 13. ----- DISPOSAL CONSIDERATIONS -----

Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Contaminated packaging

Handle uncleaned containers like the product itself

SECTION 14. ----- TRANSPORT INFORMATION -----

TDG

UN number: 1444 Class: 5.1 Packing group: III
Proper shipping name: AMMONIUM PERSULFATE
Labels: 5.1
ERG Code: 140
Marine Pollutant: No

IMDG

UN number: 1444 Class: 5.1 Packing group: III EMS-No.:F-A, S-Q
Proper shipping name: AMMONIUM PERSULFATE

IATA

UN number: 1444 Class: 5.1 Packing group: III
Proper shipping name: Ammonium Persulfate

SECTION 15. ----- REGULATORY INFORMATION -----

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

SECTION 16. ----- OTHER INFORMATION -----

Further information: no limited for paper copy, just for internal uses.
For research use only. Not intended for human or animal diagnostic or therapeutic uses.

Disclaimer

The information provided on this MSDS 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 guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

Issuing Date: 31-Dec-2022

End of SDS