

CAS No: 7727-54-0 MSDS

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	: Substance
Trade name	: Ammonium persulfate
EC index no	: 016-060-00-6
EC no	: 231-786-5
CAS No	: 7727-54-0
Product code	: 01322
Chemical structure	: $(\text{NH}_4)_2\text{S}_2\text{O}_8$
Synonyms	: Ammonium peroxodisulfate / Ammonium peroxydisulfate

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

LOBA CHEMIE PVT.LTD.
107 Wode House Road, Jehangir Villa, Colaba
400005 Mumbai - INDIA
T +91 22 6663 6663 - F +91 22 6663 6699
info@lobachemie.com - www.lobachemie.com

1.4. Emergency telephone number

Emergency number : + 91 22 6663 6663 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Oxidising Solids, Category 2	H272
Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Sensitisation — Respiratory, category 1	H334
Sensitisation — Skin, category 1	H317
Specific target organ	H335

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toxicity — Single exposure, Category 3, Respiratory tract irritation

Full text of classification categories and H statements : see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

O; R8
Xn; R22
R42
Xi; R36/37/38
R43

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS03

GHS07

GHS08

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H272 - May intensify fire; oxidiser
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

Precautionary statements (CLP) :

P220 - Keep/Store away from clothing, combustible materials
P261 - Avoid breathing vapours, dust, fume, gas
P280 - Wear protective gloves, protective clothing, eye protection, face protection
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P342+P311 - If experiencing respiratory symptoms: Call a doctor

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : AMMONIUM PERSULPHATE MOLECULAR BIOLOGY GRADE
CAS No : 7727-54-0

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EC no : 231-786-5
EC index no : 016-060-00-6

Full text of R- and H-phrases: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician.

First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse. Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.

Symptoms/injuries after skin contact : Causes skin irritation. May cause an allergic skin reaction.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : Harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : May cause fire or explosion; strong oxidiser.

Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

5.3. Advice for firefighters

Firefighting instructions : In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection during firefighting : Do not attempt to take action without suitable protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : No naked lights. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.

Emergency procedures : Ventilate area.

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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. On land, sweep or shovel into suitable containers.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Hazardous waste due to potential risk of explosion.
Precautions for safe handling : Avoid contact with skin and eyes. Keep away from sources of ignition - No smoking. Use only outdoors or in a well-ventilated area. Do not breathe vapours.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.
Storage conditions : Keep in fireproof place. Keep container tightly closed.
Incompatible materials : Heat sources. combustible materials.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Hand protection : Protective gloves
Eye protection : Chemical goggles or safety glasses
Skin and body protection : Wear suitable protective clothing
Respiratory protection : Wear respiratory protection

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Colour : White crystalline.
Odour : odourless.
Odour threshold : No data available
pH : 1 - 2

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Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 120 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: 7.88
Relative density	: No data available
Density	: 1.98 g/cm ³
Solubility	: Water: 228 g/l at 20 °C
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: The substance or mixture is classified as oxidizing with the subcategory 3. May cause fire or explosion; strong oxidiser.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

May intensify fire; oxidiser.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Moisture. Air contact. Direct sunlight.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Oral: Harmful if swallowed.
Skin corrosion/irritation	: Causes skin irritation. pH: 1 - 2
Serious eye damage/irritation	: Causes serious eye irritation. pH: 1 - 2
Respiratory or skin sensitisation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

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12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container to ...

Additional information : Hazardous waste due to potential risk of explosion.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 1444
UN-No. (IMDG) : 1444
UN-No.(IATA) : 1444
UN-No.(ADN) : 1444
UN-No. (RID) : 1444

14.2. UN proper shipping name

Proper Shipping Name (ADR) : AMMONIUM PERSULPHATE
Proper Shipping Name (IMDG) : AMMONIUM PERSULPHATE
Proper Shipping Name (IATA) : AMMONIUM PERSULPHATE
Proper Shipping Name (ADN) : AMMONIUM PERSULPHATE
Proper Shipping Name (RID) : AMMONIUM PERSULPHATE
Transport document description (ADR) : UN 1444 AMMONIUM PERSULPHATE, 5.1, III, (E)
Transport document description (IMDG) : UN 1444 AMMONIUM PERSULPHATE, 5.1, III
Transport document description (IATA) : UN 1444 AMMONIUM PERSULPHATE, 5.1, III
Transport document description (ADN) : UN 1444 AMMONIUM PERSULPHATE, 5.1, III
Transport document description (RID) : UN 1444 AMMONIUM PERSULPHATE, 5.1, III

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 5.1
Danger labels (ADR) : 5.1



IMDG

Transport hazard class(es) (IMDG) : 5.1
Danger labels (IMDG) : 5.1



IATA

Transport hazard class(es) (IATA) : 5.1

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Hazard labels (IATA) : 5.1



ADN

Transport hazard class(es) (ADN) : 5.1

Danger labels (ADN) : 5.1



RID

Transport hazard class(es) (RID) : 5.1

Danger labels (RID) : 5.1



14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : III

Packing group (RID) : III

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : O2

Limited quantities (ADR) : 5kg

Excepted quantities (ADR) : E1

Packing instructions (ADR) : P002, IBC08, LP02, R001

Special packing provisions (ADR) : B3

Mixed packing provisions (ADR) : MP10

Portable tank and bulk container instructions (ADR) : T1

Portable tank and bulk container special provisions (ADR) : TP33

Tank code (ADR) : SGAV

Tank special provisions (ADR) : TU3

Vehicle for tank carriage : AT

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Transport category (ADR)	: 3
Special provisions for carriage - Bulk (ADR)	: VC1, VC2, AP6, AP7
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV24
Hazard identification number (Kemler No.)	: 50
Orange plates	:



Tunnel restriction code (ADR)	: E
EAC code	: 1Z

- Transport by sea

Limited quantities (IMDG)	: 5 kg
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P002, LP02
IBC packing instructions (IMDG)	: IBC08
IBC special provisions (IMDG)	: B3
Tank instructions (IMDG)	: T1
Tank special provisions (IMDG)	: TP33
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-Q
Stowage category (IMDG)	: A
MFAG-No	: 140

- Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y546
PCA limited quantity max net quantity (IATA)	: 10kg
PCA packing instructions (IATA)	: 559
PCA max net quantity (IATA)	: 25kg
CAO packing instructions (IATA)	: 563
CAO max net quantity (IATA)	: 100kg
ERG code (IATA)	: 5L

- Inland waterway transport

Classification code (ADN)	: O2
Limited quantities (ADN)	: 5 kg
Excepted quantities (ADN)	: E1
Equipment required (ADN)	: PP
Number of blue cones/lights (ADN)	: 0

- Rail transport

Classification code (RID)	: O2
Limited quantities (RID)	: 5kg
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P002, IBC08, LP02, R001
Special packing provisions (RID)	: B3
Mixed packing provisions (RID)	: MP10
Portable tank and bulk container instructions (RID)	: T1
Portable tank and bulk container special provisions (RID)	: TP33
Tank codes for RID tanks (RID)	: SGAV

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Special provisions for RID tanks (RID)	: TU3
Transport category (RID)	: 3
Special provisions for carriage – Bulk (RID)	: VC1, VC2, AP6, AP7
Special provisions for carriage – Loading and unloading (RID)	: CW24
Colis express (express parcels) (RID)	: CE11
Hazard identification number (RID)	: 50

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Ammonium persulfate is not on the REACH Candidate List

Ammonium persulfate is not on the REACH Annex XIV List

15.1.2. National regulations

Germany

AwSV/VwVwS Annex reference : Water hazard class (WGK) 1, slightly hazardous to water (Classification according to VwVwS, Annex 2; WGK No 836)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Ox. Sol. 2	Oxidising Solids, Category 2
Resp. Sens. 1	Sensitisation — Respiratory, category 1

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Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H272	May intensify fire; oxidiser
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
R22	Harmful if swallowed
R36/37/38	Irritating to eyes, respiratory system and skin
R42	May cause sensitization by inhalation
R43	May cause sensitisation by skin contact
R8	Contact with combustible material may cause fire
O	Oxidising
Xi	Irritant
Xn	Harmful

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product