

1 . PRODUCT & COMPANY IDENTIFICATION

Product Name : Ammonium Persulfate

Product Cat No : A7505

CAS No :

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2 . HAZARD IDENTIFICATION

GHS Classification

Acute Toxicity Oral 4 Skin Irritant 2 Eye Irritant 2 Skin Sensitizer 1
Respiratory Sensitizer 1

For the full text of the H-Statements mentioned in this Section,
see Section 16. 2222

GHS Label elements, including precautionary statements

Pictogram :



Signal word : Danger.

Hazard statement(s) :

H302 + H312 Harmful if swallowed or in contact with skin

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.

Precautionary statement(s) :

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.
remove contact lenses, if present and easy to do. Continue rinsing.

P309 + P311 - If exposed or you feel unwell: Call a POISON CENTRE or doctor/
physician

Hazards not other classified (HNOC) or not covered by GHS

none

3 . COMPOSITION/INFORMATION ON INGREDIENT

Synonyms :

| Component | Classification | Concentration |
|--|----------------|---------------|
| Ammonium persulfate | | |
| CAS No | 7727-54-0 | 95-98% |
| EC No | 231-786-5 | |
| Ox. Sol. 3; Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2A; Resp. Sens. 1; Skin Sens. 1; STOT SE 3; Aquatic Acute 3; H272, | | |

4 . FIRST AID MEASURES

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

Inhalation: If breathed in, move person into fresh air.
If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water.
Consult a physician.

In case of eye contact : Rinse thoroughly with plenty of water for at least
15 minutes and consult a physician.

If swallowed : Do not induce vomiting. Never give anything by mouth to an
unconscious person. Rinse mouth with water. Consult a physician

5 . FIREFIGHTING MEASURES

Suitable extinguishing media: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

Special protective equipment for firefighters: Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products: nitrogen oxides (NOx), Sulphur oxides
Container explosion may occur under fire conditions.

Further information: Not data available.

6 . ACCIDENTAL RELEASE MEASURES

Personal precaution: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precaution: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for contaminant and cleaning up: Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

7 . HANDLING AND STORAGE

Precaution for safe handling: Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Condition for safe storage: Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: Store between the following temperatures:
Room temperature

8 . EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| Ingredient name | Exposure limits |
|---------------------|---|
| Ammonium persulfate | USA. ACGIH(TLV) TWA 0.1 mg/m ³ |

Personal protective equipment:

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection: Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Complete suit protecting against chemicals.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9 . PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

| | |
|-------|--------|
| Form | tablet |
| Color | white |

Safety data:

| | |
|---|-------------------|
| pH | no data available |
| Melting point | no data available |
| Freezing point | no data available |
| Boiling point | no data available |
| Flash point | no data available |
| Ignition temperature | no data available |
| Auto-ignition temperature | no data available |
| Lower explosion limit | no data available |
| Upper explosion limit | no data available |
| Vapor pressure | no data available |
| Vapor Density | no data available |
| Water solubility | no data available |
| Partition coefficient: n-octanol/water | no data available |
| Relative vapor density | no data available |
| Odor | Odorless |
| Odor threshold | no data available |
| Evaporation rate | no data available |

10 . STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

no data available

Condition to avoid

no data available

Materials to avoid

Strong reducing agents, Organic materials, Powdered metals

Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 . TOXICOLOGICAL INFORMATON

Acute Toxicity

Oral LD50

Ammonium persulfate LD50 Oral - rat - 689 mg/kg
1,2-Bis(dimethylamino)ethane - 268 mg/kg (Rat)

Inhalation LC50

Ammonium persulfate LC50 Oral - rat - 520 mg/L, 1 hour
1,2-Bis(dimethylamino)ethane - 1318 ppm (Rat) , 4 hour

Dermal LD50

1,2-Bis(dimethylamino)ethane - 5390 mg/kg (Rabbit)

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Mutagenicity (Germ cell mutagenicity)

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

no data available

Teratogenicity

no data available

Aspiration hazard

no data available

Additional information

Specific target organ toxicity— single exposure (GHS)

no data available

Specific target organ toxicity— repeated exposure (GHS)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. Causes skin irritation.
Eyes Causes eye irritation
Aggravated Medical Condition
Avoid contact with DMSO solutions containing toxic materials or materials with unknown toxicological properties. Dimethyl sulfoxide is readily absorbed through skin and may carry such materials into the body.

Synergistic effects

no known significant effects or critical hazards.

Additional information

RTECS : SE0350000

12 . ECOLOGICAL INFORMATION

Toxicity

Product/ingredient name

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 76 mg/l- 96 h
Toxicity to daphnia EC50—Daphnia magna (Water flea) - 120 mg/l - 48 h
and other aquatic invertebrates

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effect

no data available

13 . DISPOSAL CONSIDERATIONS

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14 . TRANSPORT INFORMATION

DOT(US)

Not Regulated

IMDG

Not regulated

IATA

Not regulated

15 . REGULATORY INFORMATION

United States

SARA 302 components : No chemicals in this material
 SARA 313 components : The following components are subject to
 Diammonium peroxodisulphate CAS-No 7727-54-0
 SARA 311/312 : Reactivity Hazard, Acute Health Hazard

Clean Air Act Section 112(b) : 1,2-Bis(dimethylamino) ethane
 Hazardous air pollutants (HAPs) CAS-No 110-18-9, Weight 20-30%

Clean Air Act Section 602 : not listed
 Class I substances

Clean Air Act Section 602 : not listed
 Class II substances

DEA List I Chemicals : not listed
 (Precursor chemicals)

DEA List II Chemicals : not listed
 (Essential chemicals)

States Regulation

| | | |
|-----------------|-----------------------------------|------------------|
| Massachusetts : | Diammonium peroxodisulphate | CAS-No 7727-54-0 |
| | 1,2-Bis(dimethylamino) ethane | CAS-No 110-18-9 |
| New York : | None of the components are listed | |
| New Jersey : | Diammonium peroxodisulphate | CAS-No 7727-54-0 |
| | 1,2-Bis(dimethylamino) ethane | CAS-No 110-18-9 |
| Pennsylvania : | Diammonium peroxodisulphate | CAS-No 7727-54-0 |
| | 1,2-Bis(dimethylamino) ethane | CAS-No 110-18-9 |

California Prop. 65 Components : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Canada

Not determined

Canadian lists

Canadian NPRI : Not determined
 CEPA Toxic substances : Not determined
 Canada inventory : Not determined

International Regulation

| | |
|---|-----------------|
| Australia (AICS) : | Not determined. |
| China Inventory (IECSC) : | Not determined. |
| Japan Inventory : | Not determined |
| Korea Inventory : | Not determined |
| New Zealand Inventory of Chemicals (NZIoC): | Not determined |
| Philippines Inventory (PICCS) : | Not determined. |
| Malaysia Inventory (EHS Register): | Not determined. |
| Taiwan inventory (CSNN): | Not determined. |

16 . OTHER INFORMATION

HIMS Rating:

| | |
|-------------------------|---|
| Health hazard : | 2 |
| Chronic Health Hazard : | * |
| Flammability : | 0 |
| Physical hazards: | 1 |

NFPA Rating:

| | |
|--------------------|---|
| Health Hazard: | 2 |
| Fire: | 0 |
| Reactivity Hazard: | 1 |

Full text of H-Statements referred to under sections 2 and 3.

H302 Harmful if swallowed.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

This compound is sold only for research use by personnel familiar chemicals and who are well trained in good laboratory habits, such as avoiding spills, keeping hands clean at all times and no rubbing eyes with working in the laboratory.

This solution is sold only in microliter quantities for use in life sciences research. No other use is intended. And any other use may involve substantive hazards.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish or legally valid contractual relationship. GenDEPOT LLC, shall not be held liable for any damage resulting from handling of or from with above product. The burden of safe use of this material rests entirely with the user.

Since the conditions of handling, storage and disposal of this material are beyond our control, it is the responsibility of the user to determine whether the material is fit for a particular purpose and/or suitable for the user's method of use or application, and to determine safe conditions for use of the material, and to assume full responsibility for loss, injury and expense arising out of or in connection with the use of material. NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, REGARDING THE MATERIAL DESCRIBED HEREIN SHALL BE CREATED BY OR INFERRED FROM ANY STATEMENT OR OMISSION FROM THIS MSDS.

Various government agencies and local authorities may have general or specific regulations applicable to the material which may not be covered in this MSDS. It is sole responsibility of the user to examine and confirm for its full compliance with any such regulations.

When the revision of this MSDS is received, please dispose of the old one.

Department issuing MSDS:
 GenDEPOT LLC
 Safety Department