

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

**1.1 Product identifier**

Product name	AMMONIUM PERSULPHATE
CAS-No.	7727-54-0
Product code	AR1014

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

Identified uses	Chemical for analysis and production.
-----------------	---------------------------------------

**1.3 Details of the supplier of the safety data sheet**

Company	RCI LABSCAN LIMITED. 24 Rama 1 Road, Pathumwan, Bangkok 10330 Thailand
Telephone number	(662) 613-7911-4
Fax number	(662) 613-7915

**1.4 Emergency Telephone Number**

Emergency phone	(662) 613-7911-4
-----------------	------------------

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**

Oxidizing solids (Category 3), H272  
 Acute toxicity, Oral (Category 4), H302  
 Skin irritation (Category 2), H315  
 Eye irritation (Category 2), H319  
 Respiratory sensitisation (Category 1), H334  
 Skin sensitisation (Category 1), H317  
 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335  
 For the full text of the H-Statements mentioned in this Section, see Section 16.

**2.2 Label elements**

**Labelling according Regulation (EC) No 1272/2008**

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.

## Precautionary statement(s)

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220	Keep away from clothing and other combustible materials.
P261	Avoid breathing dusts.
P264	Wash hand thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	In case of inadequate ventilation wear respiratory protection.
P301 + P317	IF SWALLOWED: Get medical help.
P302 + P352	IF ON SKIN: Wash with plenty water.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330	Rinse mouth.
P333 + P317	If skin irritation or rash occurs: Get medical help.
P337 + P317	If eye irritation persists: Get medical help.
P342 + P316	If experiencing respiratory symptoms: Get emergency medical help immediately.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

**2.3 Other hazards** None

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

Synonyms Ammonium peroxidisulphate, Peroxidisulfuric acid diammonium salt.

CAS-No	EC-No	EC-Index-No	Formula	Molecular Weight	Weight %
7727-54-0	231-786-5	016-060-00-6	H <sub>8</sub> N <sub>2</sub> O <sub>8</sub> S <sub>2</sub>	228.19 g/mol	>99

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Concentration	Classification
<b>Ammonium persulphate</b>		
CAS-No 7727-54-0 EC-No 231-786-5 EC-Index-No 016-060-00-6	>99%	Oxidizing solids (Category 3), H272 Acute toxicity, Oral (Category 4), H302 Skin irritation (Category 2), H315 Eye irritation (Category 2), H319 Respiratory sensitisation (Category 1), H334 Skin sensitisation (Category 1), H317 Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	Move to fresh air in case of accidental inhalation of dust.
Skin contact	Remove contaminated clothing and wash affected skin with soap and water.
Eye contact	If the substance has got into the eyes, immediately wash out with plenty of water at least 15 minutes. Obtain medical attention.
Ingestion	Rinse mouth. After swallowing make victim drink water (two glasses at the most), call in physician.

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

The most important known symptoms and effects are described in section 2.2 and section 11

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

Not Available

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

In adaption to materials stored in the immediate neighborhood.

### 5.2 Special hazards arising from the substance or mixture

Fire-promoting. Keep away from combustible materials. Ambient fire may liberate hazardous vapors. The following may develop in event of fire: sulfur oxides, nitrogen oxides.

### 5.3 Advice for firefighters

Do not stay in dangerous zone without self-contained breathing apparatus. Avoid contact with skin and wear suitable protective clothing.

### 5.4 Further information

Contain escaping vapors with water. Prevent fire-fighting water from entering surface water or ground water.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid generation of dusts; do not inhale dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protective equipment see **Section 8**.

### 6.2 Environmental precautions

Do not allow to enter drinking water and sewerage system.

### 6.3 Methods and materials for containment and cleaning up

Carefully sweep up, gather and remove. Avoid generation of dusts. Keep in suitable, closed containers for disposal. Clean up affected area.

### 6.4 Reference to other sections

For disposal see **Section 13**.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Provision of good ventilation in the working area. Do not leave container open. Avoid contact with organic  
Avoid spillage. Avoid rising dust.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep tightly closed in a dry, cool and well-ventilated place. Keep +2 °C to +25 °C. Keep out of direct sunlight and away from heat, sources of ignition, water, moisture and incompatible materials.

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

### 8.2 Exposure controls

#### Appropriate engineering controls

The product should only be used in ventilation hoods and fans.

#### Individual protection measures (Personal protective equipment, PPE)

##### Eye/face protection

Goggles giving complete protection to eyes.

##### Skin protection

Chemical resistant apron / corrosive protective clothing, heavy duty work shoes.

Handle with gloves

- Full contact wears gloves from nitrile rubber material.
- Splash contact wears gloves from nitrile rubber material.

The select protective gloves have to satisfy the specifications of EU Directive 89/686 EEC and standard EN 374 derived from it.

##### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Required when dusts are generated filter P1 (EN 143) or use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Environmental exposure controls

Prevent liquid entering sewers, basements and workpits.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance: Form	Solid
: Color	White
Odour	Odorless
Odour Threshold	Not Available
pH	3.2 at 100 g/l H <sub>2</sub> O at 20°C
Melting point/range	120°C (decomposition)
Boiling point/range	Not Available
Flash point	Not Available
Evaporation rate	Not Available
Flammability (solid, gas)	Not Available
Explosion limits: lower	Not Available

	upper	Not Available
Vapor Pressure		Not Available
Relative Vapor Density		Not Available
Density		1.98 g/cm <sup>3</sup> at 20°C
Bulk density:		~900 kg/m <sup>3</sup>
Water solubility		620 g/l at 20°C
Partition coefficient (n-octanol/water)		Not Available
Auto-Ignition temperature		Not Available
Decomposition Temperature		>120°C
Viscosity		Not Available
Explosive properties		Not Explosive
Oxidizing properties		May intensify fire; oxidizer. The substance or mixture is classified as oxidizing with the category 3.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Not Available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Risk of explosion in contact with hydrogen peroxide, combustible substances, aluminium (powder) + water, sodium peroxide, zinc / ammonia, ammonia / silver salts, heat.

The substance can react dangerously with reducing agents, strong alkalis, combustible substances, iron, zinc, copper, hydrogen peroxide, peroxi compounds, silver compounds, metals in powder form.

### 10.4 Conditions to avoid

Heating (slowly decomposes with release of oxygen).

### 10.5 Incompatible materials

Strong alkalis, combustible substances, iron, zinc, copper, hydrogen peroxide, peroxi compounds, silver compounds, metals in powder form.

### 10.6 Hazardous decomposition products

Sulfur oxides, nitrogen oxides (Hazardous decomposition products from under fire condition).

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD<sub>50</sub> (oral, rat): 495 mg/kg.

LD<sub>50</sub> (dermal, rat): 2000 mg/kg.

#### Acute oral toxicity

Symptoms: irritations of gastrointestinal tract, headache, nausea, vomiting, diarrhea.

#### Acute inhalation toxicity

Symptoms: dyspnoea. Irritations of respiratory tract, mucous membranes, lung. Inhalation may lead to the formation of oedemas in the respiratory tract.

#### Skin corrosion/irritation

Irritations

**Serious eye damage/eye irritation**

Irritations

**Respiratory or skin sensitization**

Sensitization test (Guinea pig) is positive.

**Germ cell mutagenicity**

Bacterial mutagenicity: Ames test is negative.

**Carcinogenicity**

Not Available

**Reproductive toxicity**

Not Available

**Teratogenicity**

Not Available

**Specific target organ toxicity (STOT) - single exposure**

May cause respiratory irritation.

**Specific target organ toxicity (STOT) - repeated exposure**

Not Available

**Aspiration hazard**

Not Available

**Further information**

After absorption headache, nausea, vomiting, diarrhea.

The following applies to ammonium salts in general: after swallowing: local irritation symptoms, nausea, vomiting, diarrhea.

Systemic effect: after the uptake of very large quantities: drop in blood pressure, collapse, CNS disorders, spasms, narcotic conditions, respiratory paralysis, haemolysis.

The product should be handled with the care usual when dealing with chemicals.

**SECTION 12: Ecological information****12.1 Toxicity**Toxicity to fish LC<sub>50</sub> Oncorhynchus mykiss: 76 mg/l /96 h.Toxicity to daphnia EC<sub>50</sub> Daphnia magna: 120 mg/l/48 h.

and other aquatic invertebrates

Toxicity to bacteria EC<sub>10</sub> Ps.putida: 36 mg/l/18 h.**12.2 Persistence and degradability**

Biodegradability Method for the determination of biodegradability is not applicable to inorganic substance.

**12.3 Bioaccumulative potential**

Partition coefficient (n-octanol/water) Not Available

**12.4 Mobility in soil**

Not Available

**12.5 Other adverse effects**

Do not allow to enter waters, waste water or soil.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

There are no uniform EC Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding law and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste or burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

#### Contaminated packaging

Disposal in compliance with official regulations. Handle contaminated packaging as hazardous waste in the same way of the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

## SECTION 14: Transport information

### Land Transport (ADR/RID)

UN Number	1444
UN proper shipping name	AMMONIUM PERSULPHATE
Transport hazard class(es)	5.1
Packing group	III
Environmental hazards	No
Special precautions for user	Yes

### Sea transport (IMDG)

UN Number	1444
UN proper shipping name	AMMONIUM PERSULPHATE
Transport hazard class(es)	5.1
Packing group	III
Marine pollutant	No
Special precautions for user	Yes
EmS	F-A S-Q

### Air transport (IATA)

UN Number	1444
UN proper shipping name	AMMONIUM PERSULPHATE
Transport hazard class(es)	5.1
Packing group	III
Environmental hazards	No
Special precautions for user	No

### River transport (AND/ADNR)

(Not examined)

## SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

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

Not Available

### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

## SECTION 16: Other information

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

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.

### Recommended restrictions

Take notice of labels and safety data sheets for the working.

### Reference

Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Labelling according to EC Directives 67/548 EEC and Regulation (EC) No 1272/2008.

Transportation information according to Recommendations on the Transport of Dangerous Goods, Model Regulations. Twelfth revised edition. United Nations.

Institute for Occupational Safety and Health of the German Social Accident Insurance in Sankt Augustin/Germany, Source: IFA for Databases on hazardous substances (GESTIS).

### Further information

Contact to RCI Labscan Limited.

### Revision Date

01/09/2021

---

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 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.