

SAFETY DATA SHEET

Oxidizer, 15% Ammonium persulfate

Version 1.0 Revision 0
 Creation Date: 22/10/2024
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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Details

Product name : Ammonium persulfate solution
Trade name : Oxidizer, 15% Ammonium persulfate
Chemical name : Ammonium persulfate, Ammonium peroxodisulfate
Manufacturer's code : C-SA-B04-30XXX
Identified uses : Laboratory chemicals

1.2 Company Identification

Manufacturer's name : Centronics Sdn Bhd
Distributor's name & address : Centronics Sdn Bhd
 Centronics Systems & Services Sdn Bhd
 No. 23, Jalan Sungai Jerluh 32/196
 Seksyen 32, Bukit Kemuning
 40460 Shah Alam, SEL
Emergency tel. no. : 603-5525 2568
Fax. no. : 603-5131 5668

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification based on CLASS 2013
 Corrosive to metals Category 1
 Skin corrosion or irritation Category 2
 Serious eye damage or eye irritation Category 2
 Respiratory sensitization Category 1
 Skin sensitization Category 1
 For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according to CLASS regulations 2013

Pictogram



Signal word

Danger

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2.3 Hazard statements

H290 May be corrosive to metals.
H315 Causes skin irritation.
H317 May cause allergic skin reaction.
H319 Causes serious eye irritation.
H334 May cause allergic or asthma symptoms or breathing difficulties if inhaled.

2.4 Precautionary statements

Prevention

P234 Keep only in original container.
P261 Avoid breathing mist/vapors.
P264 Wash thoroughly after handling.
P272 Contaminated work clothing shall not be allowed out of the workplace.
P280 Wear eye protection/face protection.
P280 Wear protective gloves.
P285 In case of inadequate ventilation wear respiratory protection.

Response

P302 + P352
IF ON SKIN: Wash with plenty of water.
P304 + P341
IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position 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.
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 or doctor/physician.
P362
Take off contaminated clothing and wash before reuse.
P390
Absorb spillage to prevent material damage.

Storage

P406 Store in corrosive resistant container with a resistant inner liner.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.5 Other hazards

None

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Chemical Name	CAS #	Proportion(%)
Ammonium persulfate, Ammonium peroxodisulfate	7727-54-0	15
Water	7732-18-5	85

SECTION 4: FIRST AID MEASURES

Inhalation 7775-27-1

If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If experiencing respiratory symptoms: Call a poison center or doctor/physician.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting

Move containers from fire area if you can do so without risk.

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equipment/instructions

HAZCHEM code

None.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

Methods and materials for containment and cleaning up

Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Store in tightly closed container. Keep only in the original container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

Malaysia. OELs. (Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health Regulations))

Components	Type	Value
Ammonium persulphate (CAS 7727-54-0)	TWA	0.1 mg/m3

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US. ACGIH Threshold Limit Values

Components	Type	Value
Ammonium persulfate (CAS 7727-54-0)	TWA	0.1 mg/m3

Biological limit values No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. General ventilation normally adequate. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).
Skin protection Wear appropriate chemical resistant gloves.
Hand protection
Skin protection Wear appropriate chemical resistant clothing.
Other
Respiratory protection In case of insufficient ventilation, use a breathing mask with filter type: B2-P2
Thermal hazards Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid
Physical state	Liquid.
Form	Liquid.
Color	Colorless
Odor	Odorless
Odor threshold	Not available.
pH (concentrated product)	6.5 Neat
Melting point/freezing point	1 °C
Initial boiling point and boiling range	100 °C
Flash point	> 100 °C P-M(CC)
Evaporation rate	Slower than Ether
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	1
Relative density	Not available.
Solubility (water)	Not available.

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Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Shelf life	360 Days
VOC	1 % ESTIMATED

SECTION 10: STABILITY AND REACTIVITY

Reactivity	May be corrosive to metals.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Metals.
Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	May cause allergy or asthma symptoms or breathing difficulties if inhaled. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Acute toxicity

Product	Species	Test Results
Ammonium persulfate solution		
Dermal		
LD50	Rabbit	> 5000 mg/kg (Calculated according to GHS additivity formula)
Inhalation		
Mist		
LC50	Rat	> 5 mg/l, 4 Hours (Calculated according to GHS additivity formula)

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Components	Species	Test Results
Ammonium persulfate solution		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
Mist		
LC50	Rat	> 5.1 mg/l, 4 Hours
Skin corrosion/irritation		Causes skin irritation.
Serious eye damage/eye irritation		Causes serious eye irritation.
Respiratory or skin sensitization		
Respiratory sensitization		May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization		May cause an allergic skin reaction.
Germ cell mutagenicity		No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity		Not classified.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability	No data available
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

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SECTION 13: DISPOSAL CONSIDERATIONS

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations Dispose in accordance with all applicable regulations.
Waste from residues / unused products Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: TRANSPORT INFORMATION

IATA

Basic shipping requirements:

UN number	UN1760
Proper shipping name	Corrosive liquid, n.o.s. (AMMONIUM PERSULFATE)
Hazard class	8
Packing group	III
Special transport precautions and conditions	Read safety instructions, SDS and emergency procedures before handling.

IMDG

Basic shipping requirements:

UN number	UN1760
Proper shipping name	CORROSIVE LIQUID, N.O.S. (AMMONIUM PERSULFATE)
Hazard class	8
Packing group	III
Marine pollutant	No
EmS No.	F-A, S-B
Special transport precautions and conditions	Read safety instructions, SDS and emergency procedures before handling.
SEA (Annex II of MARPOL 73/78 and the IBC Code)	Not established.

IATA; IMDG



HAZCHEM code

None.

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SECTION 15: REGULATORY INFORMATION

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

Active Ingredients of Pesticide Product (Pesticide Act 1974, First Schedule, as amended through October 1, 2004)

Not regulated.

CWC (Chemical Weapons Convention) Act 2005, Schedules 1-3, as amended through CWC Regulations 2007, October 5, 2007)

Not regulated.

Ozone Depleting Substances (ODS) (Environmental Quality (Prohibition on the Use of CFC and Other Gases as Propellants and Blowing Agents) Order 1993, Dec. 31, 1993)

Not regulated.

Prohibited Use of Substances [Occupational Safety and Health (Prohibition of Use of Substance) Order 1999]

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Montreal Protocol

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Ammonium persulfate (CAS 7727-54-0)

SECTION 16: OTHER INFORMATION

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

H290 May be corrosive to metals.

H315 Causes skin irritation.

H317 May cause allergic skin reaction.

H319 Causes serious eye irritation.

H334 May cause allergic or asthma symptoms or breathing difficulties if inhaled.

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Revision of the SDS: Revision 0

Disclaimer:

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