

1 Identification of substance**Product details**

Trade name

Ammonium peroxydisulfate

Stock number:

54106

Manufacturer/Supplier:

Alfa Aesar GmbH & Co.KG
Zeppelinstrasse 7
D-76185 Karlsruhe / GermanyE-mail: gcat@matthey.com
www.alfa-chemcat.com

Informing department:

Product safety department.

Emergency information:

Giftnotruf Universität Mainz / Poison Information Center Mainz
www.giftinfo.uni-mainz.de Telefon:+49(0)6131/19240**2 Hazards identification**

Hazard designation:



Information pertaining to particular dangers for man and environment

R 8 Contact with combustible material may cause fire.
R 22 Harmful if swallowed.
R 36/37/38 Irritating to eyes, respiratory system and skin.
R 42/43 May cause sensitisation by inhalation and skin contact.

GHS label elements

**Danger**

2.14/2 - May intensify fire; oxidizer.

**Danger**

3.1/3 - Toxic if swallowed.
3.2/2 - Causes skin irritation.
3.3/2A - Causes serious eye irritation.
3.4/1 - May cause an allergic skin reaction.
3.8/3 - May cause respiratory irritation.

**Danger**

Prevention:

3.4/1 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep/Store away from clothing/combustible materials.
Take any precaution to avoid mixing with combustibles.
Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.

Response:

Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
In case of inadequate ventilation wear respiratory protection.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
IF ON SKIN: Wash with plenty of soap and water.
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
Call a POISON CENTER or doctor/physician if you feel unwell.
Specific treatment (see label).
Rinse mouth.
If skin irritation occurs: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
Take off contaminated clothing and wash before reuse.
Wash contaminated clothing before reuse.
In case of fire: Use for extinction: CO₂, powder or water spray.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Storage:

Disposal:

3 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#)

Ammonium peroxydisulfate (CAS# 7727-54-0): 100%

Identification number(s):

EINECS Number:

231-786-5

Index number:

016-060-00-6

4 First aid measures

After inhalation

Supply fresh air and call for doctor for safety reasons.
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

After skin contact

Seek immediate medical advice.
Instantly wash with water and soap and rinse thoroughly.

After eye contact

Seek immediate medical advice.
Rinse opened eye for several minutes under running water. Then consult doctor.

After swallowing

Seek immediate medical advice.

5 Fire fighting measures

Suitable extinguishing agents
Special hazards caused by the material, its products of combustion or flue gases:

CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

Can be released in case of fire:

Nitrogen oxides (NO_x)Sulphur oxides (SO_x)

Ammonia

This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

Wear self-contained breathing apparatus.

Wear full protective suit.

Protective equipment:

6 Accidental release measures

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation

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Measures for environmental protection:	Do not allow material to be released to the environment without proper governmental permits. Dispose of contaminated material as waste according to item 13. Ensure adequate ventilation. See Section 7 for information on safe handling See section 8 for information on personal protection equipment. See Section 13 for information on disposal.	(Contd. of page 1)
Measures for cleaning/collecting:		
Additional information:		

7 Handling and storage

Handling	Keep containers tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation/exhaustion at the workplace. Prevent formation of dust.
Information for safe handling:	
Information about protection against explosions and fires:	Substance/product can reduce the ignition temperature of flammable substances. This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.
Storage	No special requirements. Store away from flammable substances. Store away from reducing agents. Keep container tightly sealed. Store in cool, dry conditions in well sealed containers.
Requirements to be met by storerooms and containers:	
Information about storage in one common storage facility:	
Further information about storage conditions:	

8 Exposure controls and personal protection

Additional information about design of technical systems:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.
Components with critical values that require monitoring at the workplace:	Ammonium peroxydisulfate mg/m ³ ACGIH TLV 0.1 Netherlands MAC-TGG 1 United Kingdom TWA 1 No data
Additional information:	
Personal protective equipment	The usual precautionary measures should be adhered to in handling the chemicals. Keep away from foodstuffs, beverages and food. Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work. Avoid contact with the eyes and skin. Use breathing protection with high concentrations. Check protective gloves prior to each use for their proper condition. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. Impervious gloves Not determined Safety glasses Face protection Protective work clothing.
General protective and hygienic measures	
Breathing equipment:	
Protection of hands:	
Material of gloves	
Penetration time of glove material	
Eye protection:	
Body protection:	

9 Physical and chemical properties:

General Information	
Form:	Solid.
Colour:	White
Smell:	Odourless
Change in condition	
Melting point/Melting range:	120°C (dec)
Boiling point/Boiling range:	Not determined
Sublimation temperature / start:	Not determined
Flash point:	Not applicable
Inflammability (solid, gaseous)	Contact with combustible material may cause fire.
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Critical values for explosion:	
Lower:	Not determined
Upper:	Not determined
Steam pressure:	Not determined
Density at 20°C	1.982 g/cm ³

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:	No decomposition if used and stored according to specifications.
Materials to be avoided:	Reducing agents
Dangerous reactions:	Reacts with reducing agents Reacts with flammable substances
Dangerous products of decomposition:	Nitrous vitriol gases Sulphur oxides (SO _x) Ammonia

11 Toxicological information

Acute toxicity:	
LD/LC50 values that are relevant for classification:	
Oral LD50 589 mg/kg (rat)	

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Primary irritant effect:
on the skin: Irritant for skin and mucous membranes.
on the eye: Irritant effect.

Sensitization: Sensitization possible by inhalation.
Sensitization possible by skin contact.

Additional toxicological information: To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

Sensitisation: May cause sensitisation by inhalation and skin contact.

12 Ecological information:

General notes: Water hazard class 1 (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
Do not allow material to be released to the environment without proper governmental permits.

13 Disposal considerations

Product:

Recommendation: Consult state, local or national regulations for proper disposal.
Hand over to disposers of hazardous waste.
Must be specially treated under adherence to official regulations.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14 Transport information**Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**

ADR/RID-GGVS/E Class: 5.1 (O2) Oxidising substances.

Kemler Number: 50

UN-Number: 1444

Packaging group: III

Label: 5.1

Designation of goods: 1444 AMMONIUM PERSULPHATE

Limited quantities (LQ): LQ12

Transport category: 3

Tunnel restriction code: E

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 5.1

UN Number: 1444

Label: 5.1

Packaging group: III

Correct technical name: AMMONIUM PERSULPHATE

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 5.1

UN/ID Number: 1444

Label: 5.1

Packaging group: III

Correct technical name: AMMONIUM PERSULPHATE

UN "Model Regulation": UN1444, AMMONIUM PERSULPHATE, 5.1, III

15 Regulatory information**Designation according to EC guidelines:**

Code letter and hazard designation of product:



Risk phrases: 8 Contact with combustible material may cause fire.
22 Harmful if swallowed.
36/37/38 Irritating to eyes, respiratory system and skin.
42/43 May cause sensitisation by inhalation and skin contact.

Safety phrases: 22 Do not breathe dust.
24 Avoid contact with skin.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
37 Wear suitable gloves.

National regulations

Information about limitation of use: Employment restrictions concerning young persons must be observed.
For use only by technically qualified individuals.

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing data specification sheet: Health, Safety and Environmental Department.

Contact: Zachariah Holt

Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

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