



Material Safety Data Sheet

Creation Date 10-Dec-2009

Revision Date 10-Dec-2009

Revision Number 1

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Ammonium Peroxydisulfate
Cat No. A682-3; A682-10; A682-500; BP179-25; BP179-100
Synonyms Ammonium persulfate (Crystalline/Certified ACS/Electrophoresis)
Recommended Use Laboratory chemicals

Company Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number
CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 703-527-3887

2. HAZARDS IDENTIFICATION

DANGER!

Emergency Overview

Oxidizer: Contact with combustible/organic material may cause fire. Harmful if swallowed. Causes eye, skin, and respiratory tract irritation. May cause allergic respiratory and skin reaction.

Appearance White

Physical State Powder

Odor odorless

Target Organs Respiratory system, Eyes, Skin

Potential Health Effects

Acute Effects

Principle Routes of Exposure

Eyes	Irritating to eyes.
Skin	Irritating to skin. May be harmful in contact with skin. May produce an allergic reaction.
Inhalation	Irritating to respiratory system. May cause allergic respiratory reaction. May be harmful if inhaled.
Ingestion	Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects Repeated contact may cause allergic reactions in very susceptible persons.

See Section 11 for additional Toxicological information.

Aggravated Medical Conditions No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	CAS-No	Weight %
Ammonium persulfate	7727-54-0	98

4. FIRST AID MEASURES

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.

Ingestion Do not induce vomiting. Call a physician or Poison Control Center immediately.

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point No information available.
Method No information available.

Autoignition Temperature No information available.

Explosion Limits

Upper No data available
Lower No data available

Suitable Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media No information available.

Hazardous Combustion Products No information available.

Sensitivity to mechanical impact No information available.
Sensitivity to static discharge No information available.

Specific Hazards Arising from the Chemical
 Oxidizer: Contact with combustible/organic material may cause fire. Keep product and empty container away from heat and sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors.

Protective Equipment and Precautions for Firefighters
 As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

NFPA Health 2 Flammability 1 Instability 2 Physical hazards OX

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes and clothing.

Environmental Precautions Should not be released into the environment.

Methods for Containment and Clean Up Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Keep combustibles (wood, paper, oil, etc) away from spilled material.

7. HANDLING AND STORAGE

Handling Use only under a chemical fume hood. Wear personal protective equipment. Avoid dust formation. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Keep away from clothing and other combustible materials.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ammonium persulfate	TWA: 0.1 mg/m ³		

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Ammonium persulfate			TWA: 0.1 mg/m ³

NIOSH IDLH: Immediately Dangerous to Life or Health

Personal Protective Equipment

Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Powder
Appearance	White
Odor	odorless
Odor Threshold	No information available.
pH	3.2 100 g/L
Vapor Pressure	negligible
Vapor Density	No information available.
Viscosity	No information available.
Boiling Point/Range	No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Melting Point/Range	120°C / 248°F
Decomposition temperature °C	120
Flash Point	No information available.
Evaporation Rate	negligible
Specific Gravity	1.980
Solubility	Soluble in water
log Pow	No data available
Molecular Weight	228.19
Molecular Formula	H8 N2 O8 S2

10. STABILITY AND REACTIVITY

Stability	Oxidizer: Contact with combustible/organic material may cause fire. Moisture sensitive.
Conditions to Avoid	Combustible material. Excess heat. Exposure to moisture.
Incompatible Materials	Reducing agents, Metals, Peroxides, Strong oxidizing agents
Hazardous Decomposition Products	Nitrogen oxides (NOx), Sulfur oxides, Ammonia
Hazardous Polymerization	Hazardous polymerization does not occur
Hazardous Reactions .	None under normal processing.

11. TOXICOLOGICAL INFORMATIONAcute Toxicity

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ammonium persulfate	495 mg/kg (Rat)	Not listed	520 mg/L (Rat) 1 h

Irritation Irritating to eyes, respiratory system and skin

Toxicologically Synergistic Products No information available.

Chronic Toxicity

Carcinogenicity There are no known carcinogenic chemicals in this product

Sensitization May cause sensitization by inhalation and skin contact

Mutagenic Effects No information available.

Reproductive Effects No information available.

Developmental Effects No information available.
 Teratogenicity No information available.
 Other Adverse Effects The toxicological properties have not been fully investigated.. See actual entry in RTECS for complete information.
 Endocrine Disruptor Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Ammonium persulfate	Not listed	Not listed	Not listed	EC50 48 h 120 mg/L

Persistence and Degradability No information available
 Bioaccumulation/ Accumulation No information available
 Mobility No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

14. TRANSPORT INFORMATION

DOT

UN-No UN1444
 Proper Shipping Name AMMONIUM PERSULFATE
 Hazard Class 5.1
 Packing Group III

TDG

UN-No UN1444
 Proper Shipping Name AMMONIUM PERSULFATE
 Hazard Class 5.1
 Packing Group III

IATA

UN-No UN1444
 Proper Shipping Name AMMONIUM PERSULPHATE

14. TRANSPORT INFORMATION

Hazard Class 5.1
 Packing Group III

IMDG/IMO

UN-No UN1444
 Proper Shipping Name AMMONIUM PERSULPHATE
 Hazard Class 5.1
 Packing Group III

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Ammonium persulfate	X	X	-	231-786-5	-		X	X	X	X	KE-09815 X

Legend:

- X - Listed
- E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
- F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
- N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
- P - Indicates a commenced PMN substance
- R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
- S - Indicates a substance that is identified in a proposed or final Significant New Use Rule
- T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.
- XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).
- Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
- Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Ammonium persulfate	7727-54-0	98	1.0

SARA 311/312 Hazardous Categorization

Acute Health Hazard No
 Chronic Health Hazard No
 Fire Hazard No
 Sudden Release of Pressure Hazard No
 Reactive Hazard No

Clean Water Act
Not applicable

Clean Air Act
Not applicable

OSHA
Not applicable

CERCLA
Not Applicable

California Proposition 65
This product does not contain any Proposition 65 chemicals.

State Right-to-Know

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Ammonium persulfate	-	X	-	-	-

U.S. Department of Transportation

Reportable Quantity (RQ): N
 DOT Marine Pollutant N
 DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

C Oxidizing materials
 D2A Very toxic materials
 D2B Toxic materials



16. OTHER INFORMATION

Prepared By Regulatory Affairs
 Thermo Fisher Scientific
 Tel: (412) 490-8929

Creation Date 10-Dec-2009

Print Date 10-Dec-2009

Revision Summary "****", and red text indicates revision

Disclaimer

The information provided on 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 a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of MSDS

REVIEWED
DATE: 30 March 2012
Chutterford