SAFETY DATA SHEET

Issuing Date 23-Jul-2012 **Revision Date** 09-Feb-2015 **Revision Number** 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier
Product Name AMMONIUM PERSULFATE

Other means of identification
Product Code(s) BDH9214-500G
UN-No 1444
Synonyms No information available.

Recommended use of the chemical and restrictions on use
Recommended Use For Laboratory Use Only. Not for Drug, Food, or Household use.
Uses advised against Not for Human or Animal Drug Use

Details of the supplier of the safety data sheet
Company Address
VWR International, LLC
Radnor Corporate Center
100 Matsonford Road
Radnor, PA 19087-8660

Company Phone Number 610-386-1700
E-mail Address www.vwr.com

Emergency Telephone Number
Emergency Telephone Number CHEMTREC 800.424.9300
CANUTEC 613.996.6666

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute Toxicity - Oral	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Respiratory Sensitization	Category 1
Skin Sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 3

Label elements

Emergency Overview

Danger

Hazard Statements
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



Appearance White **Physical State** Crystalline Powder **Odor** No information available

Precautionary Statements
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P264 - Wash face, hands and any exposed skin 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
P285 - In case of inadequate ventilation wear respiratory protection
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
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
P312 - Call a POISON CENTER or doctor if you feel unwell
P321 - Specific treatment (see supplemental first aid instructions on this label)
P330 - Rinse mouth
P332 + P313 - If skin irritation occurs: Get medical advice/attention
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
P363 - Wash contaminated clothing before reuse
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents/ container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable
Other Information
• May be harmful if inhaled

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	EC No.	Weight %	Trade Secret
Ammonium persulfate	7727-54-0	231-786-5	95-100	Not applicable

4. FIRST AID MEASURES

First Aid Measures

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin Contact Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

Inhalation Move to fresh air. If not breathing, give artificial respiration.

Ingestion Never give anything by mouth to an unconscious person. Rinse mouth.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms/Effects No information available.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Water spray.

Unsuitable Extinguishing Media No information available.

Specific Hazards Arising from the Chemical
This is a strong oxidizer and will react vigorously or explosively with many materials including fuels.

Hazardous Combustion Products Carbon oxides. Emits toxic fumes.

Explosion Data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use personal protective equipment. Ensure adequate ventilation.

Environmental Precautions

Environmental Precautions See Section 12 for additional Ecological information.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Cover with dry lime or soda ash. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling Mixing a solution of ammonium persulfate with powdered aluminum or iron may result in an explosion.
Violent reaction results from silver-catalyzed oxidation of ammonia to nitrogen.
The salt exploded during drying due possibly to the formation of tetraaminezinc peroxodisulfate from the interaction of ammonium persulfate with galvanised iron and ammonia.
A mixture with sodium peroxide explodes from friction due to grinding in a mortar, when heated above 75 C or on exposure to carbon dioxide or drops of water.
Catalytic decomposition can occur in the presence of metals such as lead, silver, copper, magnesium, zinc, cadmium, nickel, iron and cobalt. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Hygroscopic. Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Products Strong reducing agents. Finely powdered metals. Organic materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines .

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ammonium persulfate 7727-54-0	TWA: 0.1 mg/m³	-	

Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses with side-shields. Avoid contact with eyes.

Skin and Body Protection Wear protective gloves/clothing.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State Crystalline Powder
Appearance White
Color No information available
Odor No information available
Odor Threshold No information available

Property	Values	Remarks • Method
pH	No information available.	
Melting point/freezing point		
Boiling Point/Range	No information available.	
Flash Point (High in °C)	No information available.	

Evaporation Rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	No information available.
Lower flammability limit:	No information available.
Vapor pressure	No information available.
Vapor Density	No information available.
Specific Gravity	No information available
Water Solubility	Very soluble in water
Solubility in other solvents	No information available.
Partition coefficient	No information available
Autoignition Temperature	
Decomposition Temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available.
Explosive Properties	No information available
Oxidizing Properties	Strong oxidizer

Other Information

Softening Point	No information available.
Molecular Weight	No information available
VOC Content	No information available.
Density	No information available
Bulk Density	No information available

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to Avoid
Hygroscopic.

Incompatible Materials
Strong reducing agents. Finely powdered metals. Organic materials.

Hazardous Decomposition Products
Nitrogen oxides (NOx). Sulfur oxides. Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Irritating to eye, skin and respiratory system Sensitizer Harmful if swallowed
Inhalation	There is no data available for this product.
Eye Contact	There is no data available for this product.
Skin Contact	There is no data available for this product.
Ingestion	There is no data available for this product.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation

Ammonium persulfate 7727-54-0	= 495 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	= 520 mg/L (Rat) 1 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Mutagenic Effects No information available.
Carcinogenicity No information available.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ammonium persulfate 7727-54-0	-	-	-	-

Reproductive Toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Chronic Toxicity Repeated contact may cause allergic reactions in very susceptible persons.
Target Organ Effects Eyes, Lungs, Nose, Throat.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Toxicity to Algae	Toxicity to Fish	Daphnia Magna (Water Flea)
Ammonium persulfate 7727-54-0	-	103: 96 h Lepomis macrochirus mg/L LC50 static 76.3: 96 h Oncorhynchus mykiss mg/L LC50 static 323: 96 h Poecilia reticulata mg/L LC50	120: 48 h Daphnia magna mg/L EC50

Persistence and Degradability
No information available.

Bioaccumulation/Accumulation
No information available.

Chemical Name	Log Pow
Ammonium persulfate 7727-54-0	-

Other Adverse Effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Method Dispose of material in accordance with all federal, state, and local regulations.

Contaminated Packaging Do not re-use empty containers.

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes

Ammonium persulfate 7727-54-0	-	-	-	-

Chemical Name	California Hazardous Waste Status
Ammonium persulfate 7727-54-0	-

14. TRANSPORT INFORMATION

DOT

UN-No	1444
Proper Shipping Name	Ammonium Persulfate
Hazard Class	5.1
Packing Group	III

IATA

UN-No	1444
Proper Shipping Name	Ammonium Persulfate
Hazard Class	5.1
Packing Group	III

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Component	SARA 313 - Threshold Values %
Ammonium persulfate 7727-54-0 (95-100)	1.0

SARA 311/312 Hazard Categories

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

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ammonium persulfate 7727-54-0	-	-	-	-

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Ammonium persulfate 7727-54-0	-	-	-

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

Chemical Name	California Prop. 65
Ammonium persulfate - 7727-54-0	-

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Ammonium persulfate 7727-54-0	X	-	-

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

Canada

WHMIS Hazard Class

C Oxidizing materials D2A Very toxic materials D2B Toxic materials



16. OTHER INFORMATION

Issuing Date 23-Jul-2012
Revision Date 09-Feb-2015
Revision Note

No information available

Disclaimer

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regerd to appropriate safety precautions. It does not represent any guarantee of the properties of the product. VWR International and its Affiliates shall not be held liable for any damage resulting from handling.

End of Safety Data Sheet