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Rev. 5

1. IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND THE COMPANY/UNDERTAKING

Product Name: Ammonium Persulfate
Product Code: IB70080
Recommend Use: For further manufacturing use only
Uses Advised Against: Not for human or animal drug use
Synonyms: AMMONIUM PEROXYDISULFATE * DIAMMONIUM PEROXYDISULPHATE
Company: IBI SCIENTIFIC
7445 Chavenelle Road
Dubuque, IA 52002
Emergency Tele. Number: 3E Company (Acct# 9027) 1-800-451-8346 / (001) 760-602-8703
Company Tele. Number: 1-800-253-4942 / (001) 563-690-0484
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2. HAZARDOUS IDENTIFICATION

GHS – Classification

OSHA Regulatory Status: This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29CFR 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
Oxidizing Solids	Category 3

Signal Word: Danger



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

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

Precautionary Statements: P210-Keep away from heat/sparks/open flames/hot surfaces – No smoking
P220-Keep/Store away from clothing/Combustible materials
P221-Take any precaution to avoid mixing with combustibles
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
P370+P378-In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam to extinguish
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
P501-Dispose of contents/container to industrial incineration plant

Hazards not otherwise classified: Not applicable

Other Information: May be harmful if inhaled

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name:	Ammonium Persulfate
EC No.:	EEC No. 231-786-5
REACH Reg. No.:	Not Available
CAS No.:	7727-54-0
Weight %:	95 – 100
Classification:	O;R8,Xn;R22, Xi;R36/37/38,R42/43

4. 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.
Notes to Physician:	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Specific Hazards Arising from the Chemical:	This is a strong oxidizer and will react vigorously or explosively with many materials, including fuels
Flash Point:	>93.3°C / 200°F
Suitable Extinguishing Media:	Dry chemical, CO ₂ , water spray, alcohol-resistant foam
Hazardous Combustion Products:	Carbon oxides, Emits toxic fumes
Explosion Data	
Sensitivity to Mechanical Impact:	Not sensitive
Sensitivity to Static Discharge:	Not sensitive
Protective Equip. & Precautions for Firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equiv.) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Use personal protective equipment. Ensure adequate ventilation.
Environmental Precautions:	See Section 12 for additional ecological information.
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

Handling:	<p>Mixing a solution of ammonium persulfate with powdered aluminum or iron may result in an explosion</p> <p>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 galvanized iron and ammonia.</p> <p>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.</p> <p>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.</p>
Storage:	Hygroscopic. Keep container 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

Exposure Guidelines:	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Chemical Name:	Ammonium persulfate - #7727-54-0
ACGIH TLV:	TWA: 0.1mg/m ³
OSHA PEL:	-
NIOSH IDLH:	-

Engineering Measures: Showers, Eyewash Stations, Ventilation Systems

Personal Protective Equipment

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

Appearance:	White
Odor:	No information available
Odor Threshold:	No information available
Decomposition Temp. °C:	No information available
Freezing Point:	No information available
Initial Boiling Point:	No information available
Physical State:	Crystalline Powder
pH:	No data available
Flash Point:	>93.3°C
Autoignition Temp. °C:	No data available
Boiling Point/Range:	No data available
Melting Point/Range:	No information available
Flammability Limits (Air):	<u>Upper</u> -No data available * <u>Lower</u> -No data available
Explosion Limits	No information available
Explosive Properties:	No information available
Oxidizing Properties:	No information available
Evaporation Rate:	No information available
MMHG @ 37.8°C:	No data available
Vapor Density:	No data available
Specific Gravity:	No data available
Water Solubility:	Very soluble in water
Solubility in other solvents:	No data available
Partition Coefficient (n-octanol/water):	No data available
Viscosity:	No information available
Oxidizing Properties:	Strong oxidizer

10. STABILITY AND REACTIVITY

Reactivity:	No data available
Chemical Stability:	Stable under recommended storage conditions
Possibility of Hazardous Reactions:	None under normal processing
Incompatible Products:	Strong reducing agents, Finely powdered metals, Organic materials.
Conditions to Avoid:	Hygroscopic.
Hazardous Decomposition Products:	Carbon oxides, Nitrogen oxides (NO _x), Sulfur oxides.
Hazardous Polymerization:	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information:	Causes skin, eye, and respiratory tract irritation. Sensitizer.
	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:	Ammonium persulfate - #7727-54-0
LD50 Oral:	495mg/kg (Rat)
LD50 Dermal:	>10000mg/kg (Rabbit)
LC50 Inhalation:	520mg/L (Rat) 1h

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:	Ammonium persulfate - #7727-54-0
ACGIH:	-
IARC:	-
NTP:	-
OSHA:	-

Reproductive Toxicity:	No information available
STOT – single exposure:	No information available
STOT – repeated exposure:	No information available
Target Organ Effects:	Eyes, Lungs, Nose, Throat
Aspiration Effects:	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

<u>Ecotoxicity:</u>	0% of mixture consists of component(s) of unknown hazards to aquatic environment
Chemical Name:	Ammonium persulfate - #7727-54-0
Toxicity to Algae:	-
Toxicity to Fish:	LC50 Static = 103mg/L <i>Lepomis macrochirus</i> (96h) LC50 Static = 76.3mg/L <i>Oncorhynchus mykiss</i> (96h) LC50 = 323mg/L <i>Poecilia reticulata</i> (96h)
Daphnia Magna (Water Flea):	EC50 = 120mg/L <i>Daphnia magna</i> (48h)
Persistence and Degradability:	No information available
Bioaccumulation/Accumulation:	No information available
Chemical Name:	Ammonium persulfate - #7727-54-0
Low Pow:	-
Other Adverse Effects:	No information available

13. DISPOSAL CONSIDERATIONS

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

Contaminated Packaging: Do not re-use empty containers.

Chemical Name:	Ammonium persulfate - #7727-54-0
RCRA – Halogenated Organic Compounds:	-
RCRA – P Series Wastes:	-
RCRA – F Series Wastes:	-
RCRA – K Series Wastes:	-

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

14. TRANSPORT INFORMATION

IATA

UN#	UN1444
Proper Shipping Name	AMMONIUM PERSULFATE
Hazardous Class	5.1
Packing Group	III

US DOT

UN#	UN1444
Proper Shipping Name	AMMONIUM PERSULFATE
Hazardous Class	5.1
Packing Group	III

15. TOXICOLOGICAL 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 & Title 40 of the Code of Federal Regulations, part 372.

Chemical Name: Ammonium persulfate - #7727-54-0
SARA 313 – Threshold Values %: 1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
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: Ammonium persulfate - #7727-54-0
CWA – Reportable Quantities: -
CWA – Toxic Pollutants: -
CWA – Priority Pollutants: -
CWA – Hazardous Substances: -

CERCLA

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

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

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

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

U.S. Right-to-Know Regulations

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

U.S. EPA Label Information

EPA Pesticide Registration #: Not applicable.

Canada

No information available

WHMIS Hazard Class

C – Oxidizing materials
D2A – Very toxic materials
D2B – Toxic materials



16. OTHER INFORMATION

Issuing Date:	22-Dec-1997
Revision Date:	11-July-2018
Revision Note:	Updated address and logo
Recommended Restrictions:	No information available
Disclaimer:	The information provided on this SDS 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 test.

End of Safety Data Sheet