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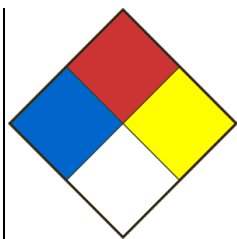
## SAFETY DATA SHEET

### SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier AMMONIUM PERSULFATE		Product Use Laboratory use	
Chemical formula (NH <sub>4</sub> ) <sub>2</sub> S <sub>2</sub> O <sub>8</sub>		Product code AR-0145	Molar weight 228,2
Chemical name / Commercial name / Synonymous AMMONIUM PERSULFATE, PÉROXYDISULFATE D'AMMONIUM, DIAMMONIUM PEROXYDISULFATE, DIAMMONIUM PERSULFATE			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
City Québec		Province Québec	
Postal code G1C 7B7	Internet www.labmat.com	Phone number 418-660-8666 / 800-890-8666	
Emergency phone	CANUTEC: 613-996-6666		CENTRE ANTI-POISON DU QUÉBEC 800-463-5060
Date SDS 2/11/2019	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

## SECTION 02 - HAZARDS IDENTIFICATION

<b>Classification WHIMS / GHS</b>	<p>Oxidizing solids category 3</p> <p>Acute toxicity - Oral category 4</p> <p>Skin corrosion/irritation - Skin irritation category 2</p> <p>Serious eye damage/ Eye irritation category 2A</p> <p>Respiratory or skin sensitization - Respiratory sensitizer category 1</p> <p>Respiratory or skin sensitization - Skin sensitize category 1</p> <p>Specific target organ toxicity - Single exposure category 3</p>
<b>Signal Word</b>	<p>DANGER</p>
<b>Hazards statements (H)</b>	<p>H272 May intensify fire; oxidiser.</p> <p>H302 Harmful if swallowed.</p> <p>H315 Causes skin irritation.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H319 Causes serious eye irritation.</p> <p>H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.</p> <p>H335 May cause respiratory irritation.</p>
<b>Precautionary statements (P)</b>	<p>P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.</p> <p>P220 Keep/Store away from clothing and combustible materials.</p> <p>P261 Avoid breathing dust / fume / gas / mist / vapours / spray.</p> <p>P264 Wash the areas of the body that have been in contact with the product after handling.</p> <p>P270 Do no eat, drink or smoke when using this product.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P284 Wear respiratory protection.</p> <p>P302 + P352 IF ON SKIN: Wash with plenty of soap and water.</p> <p>P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P321 Specific treatment (see section 4 of the SDS and on this label).</p> <p>P330 Rinse mouth.</p> <p>P332 + P313 If skin irritation occurs: Get medical advice/attention.</p> <p>P337 + P313 If eye irritation persists: Get medical advice/attention.</p> <p>P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.</p> <p>P362 + P364 Take off contaminated clothing and wash it before reuse.</p> <p>P370 + P378 In case of fire: Use water spray or alcohol-resistant foam, or dry powder or carbon dioxide for extinction.</p> <p>P403 + P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.</p>
<b>PICTOGRAMS</b>	
<b>Other dangers</b>	<p>NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)</p>



Health 2  
Fire 0  
Reactivity 0  
Special danger OX

## SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Persulfate d'ammonium	7727-54-0	<=100

## SECTION 04 - FIRST AID MEASURES

<b>Eye contact</b>	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
<b>Skin contact</b>	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
<b>Inhalation</b>	If breathing is difficult, give oxygen. If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
<b>Ingestion</b>	If the person is conscious, give water to drink. Never give anything by mouth to an unconscious person. Consult a physician.
<b>Most important symptoms and effects (acute and delayed)</b>	Ref. section 11.
<b>Immediate medical attention and special treatment, if necessary</b>	In case of medical consultation, keep this sheet available.
<b>General advice</b>	Show this safety data sheet to the doctor in attendance.

## SECTION 05 - FIREFIGHTING MEASURES

<b>Flammability</b>	No
<b>Ignition conditions</b>	Not flammable or combustible. Risk of fire or explosion if heated or crushed in presence of combustible products.
<b>Suitable extinguishing media</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Unsuitable extinguishing media</b>	Data not available.
<b>Hazardous combustion / decomposition products</b>	Hazardous decomposition products formed under fire conditions. - nitrogen oxides (NO <sub>x</sub> ), Sulphur oxides
<b>Special fire and explosion hazards</b>	Powerful oxidizer Contact with combustible products may cause fire. Mixing ammonium persulfate in solution with aluminum or iron powder may cause an explosion. Dry salt can explode during drying due to the formation of tetra-amine zinc peroxodisulfate. Ammonium persulfate mixed with sodium peroxide may explode as a result of friction caused by grinding in a mortar; especially if heated above 75 ° C or in contact with carbon dioxide and drops of water. Catalytic decomposition can occur in the presence of certain metals such as: silver, cadmium, cobalt, copper, iron, magnesium, nickel, lead and zinc. Reacts violently with strong reducing agents. May react violently with incompatible products (Ref Section 10).
<b>Special protective equipment and precautions for firefighters</b>	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

## SECTION 06 - ACCIDENTAL RELEASE MEASURES

<b>Methods and materials for containment and cleaning up / Personal precautions, protective equipment</b>	Evacuate personnel to safe areas. Pick up with a shovel or broom, taking care not to scatter dust. Clean and rinse with water. Ensure a good ventilation of the premises. Avoid dust formation. Avoid breathing vapours, mist or gas. When handling, wear appropriate safety equipment. Use a respirator as needed. Dispose of residues in a container provided for the disposal of hazardous materials. Do not let product enter drains.
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## SECTION 07 - HANDLING AND STORAGE

<b>Conditions for safe storage</b>	Keep container tightly closed in a dry and well-ventilated place. Moisture sensitive. Keep container tightly closed and store away from heat, moisture, combustible and incompatible products.
<b>Methods of handling</b>	Always open containers slowly to allow any excess pressure to vent. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust or vapor is formed. Keep away from sources of ignition - No smoking. Keep away from heat and sources of ignition.

## SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

### Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Diammonium peroxodisulphate	7727-54-0	TWA	0.100000 mg/m <sup>3</sup>	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required			
		TWAEV	0.100000 mg/m <sup>3</sup>	Canada. Ontario OELs
		TWA	0.100000 mg/m <sup>3</sup>	Canada. British Columbia OEL
		TWA	0.1 mg/m <sup>3</sup>	Canada. British Columbia OEL
		TWA	0.100000 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
		TWA	0.1 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)

<b>Data source</b>	Sigma-Aldrich (Millipore Sigma)
<b>Ventilation</b>	Fan.
<b>Respiratory</b>	If work under the hood is not possible, or if the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
<b>Gloves</b>	Handle with gloves.
<b>Eyes</b>	Safety goggles with safety shutters.
<b>Shoes</b>	Safety shoes.
<b>Clothing</b>	Labcoat.
<b>Engineering control</b>	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

## SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state</b>	Solid.
<b>Appearance</b>	Poudre granuleuse de couleur blanche à blanc-cassé.
<b>Odour</b>	inodore.
<b>Odour threshold</b>	Donnée non disponible-
<b>pH</b>	3.2 soln aqu. 100g/L.
<b>Melting point / Freezing point</b>	120°C (dec)
<b>Initial boiling point</b>	Data not available
<b>Boiling range</b>	Data not available
<b>Flash point</b>	Data not available
<b>Evaporation rate</b>	Data not available
<b>Flammability</b>	No
<b>Lower flammable / Explosive limit</b>	Data not available
<b>Upper flammable / Explosive limit</b>	Data not available
<b>Vapour pressure</b>	7.9-
<b>Vapour density</b>	7.88 (Air=1)-
<b>Relative density</b>	1.982g/cm <sup>3</sup>
<b>Solubility</b>	Soluble dans l'eau.
<b>Partition coefficient water/n-octanol</b>	Data not available
<b>Auto-ignition temperature</b>	Data not available
<b>Decomposition temperature</b>	>120°C
<b>Viscosity</b>	Data not available

## SECTION 10 - STABILITY AND REACTIVITY

<b>Reactivity</b>	Non-reactive under normal conditions.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions</b>	Oxidizer.
<b>Conditions of instability (Including sensitivity to shock / static discharge / vibration)</b>	This product may decompose if exposed to moisture from the air and water.
<b>Incompatible material</b>	Strong reducing agents (potassium, sodium, hydrides of metals), ammonia and its solutions, fine metal powders (aluminum, silver, cadmium, cobalt, copper, iron, magnesium, nickel, lead, zinc), the sodium peroxide, water, heat and humidity.
<b>Hazardous decomposition products</b>	Hazardous decomposition products formed under fire conditions. - nitrogen oxides (NO <sub>x</sub> ), Sulphur oxides

## SECTION 11 - TOXICOLOGICAL INFORMATION

### AMMONIUM PERSULFATE

<b>Routes of exposure</b>	Ingestion, inhalation, skin and eyes.
<b>Acute exposition effects / symptoms:</b>	By exposure route below.
<b>- Eyes</b>	Severe irritation and burning may cause permanent eye damage.
<b>- Skin</b>	Severe irritation and tissue burns. May cause dermatitis.
<b>- Inhalation</b>	Spasms, irritation and inflammation of the nose, throat and lungs. Edema of the larynx and bronchi. Chemical pneumonitis and pulmonary edema that can lead to death.
<b>Acute toxicity (Ingestion)</b>	Irritation and burning of the mouth, throat, esophagus and abdominal wall. Dysphagia, abdominal pain, cramps, diarrhea, headache, melena, sweating, salivation, convulsions, stupor, unconsciousness, coma and can lead to death.
<b>Chronic exposure effects / symptoms</b>	Burning sensation, dermatitis, conjunctivitis, nervous disorders, lung damage, chest pain, cough, dyspnea, laryngitis, headache, dizziness, tearing, confusion, irritability, sweating, salivation, fatigue, weight loss and loss of appetite, convulsions, nausea and vomiting.
<b>DL50 (specify species and route of entry)</b>	LD50 Oral - Rat - 689 mg/kg LD50 Dermal - Rat - 2000mg/kg.
<b>CL50 (specify species and route of entry)</b>	LC50 Inhalation - Rat - 4h - 2.95 mg/L.

## SECTION 12 - ECOLOGICAL INFORMATION

<b>Available ecological information</b>	Yes
<b>Ecotoxicity</b>	Toxicity to fish: LC50 - <i>Oncorhynchus mykiss</i> (rainbow trout) - 76 mg/l - 96 h. Toxicity to daphnia and other aquatic invertebrates: EC50 - <i>Daphnia magna</i> (Water flea) - 120 mg/l - 48 h.
<b>Persistence and degradability</b>	Data not available.
<b>Bioaccumulative potential</b>	Data not available.
<b>Mobility in soil</b>	Data not available.
<b>Other adverse effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

## SECTION 13 - DISPOSAL CONSIDERATIONS

<b>Waste Disposal Method</b>	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
<b>Contaminated Packaging</b>	Dispose of as unused product.

## SECTION 14 - TRANSPORT INFORMATION

UN Number	1444
UN Proper shipping name	PERSULFATE D'AMMONIUM
Transport hazard class(es)	5.1 Oxidizing substances
Packing group	III
Limited quantity index	5kg
ERAP Index	-
Special precautions	-

## SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	<p>Oxidizing solids category 3</p> <p>Acute toxicity - Oral category 4</p> <p>Skin corrosion/irritation - Skin irritation category 2</p> <p>Serious eye damage/ Eye irritation category 2A</p> <p>Respiratory or skin sensitization - Respiratory sensitizer category 1</p> <p>Respiratory or skin sensitization - Skin sensitize category 1</p> <p>Specific target organ toxicity - Single exposure category 3</p>
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## SECTION 16 - OTHER INFORMATION

### Further information

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

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