

Issuing Date 19-Nov-2015

Revision Date 22-Jan-2018

Revision Number 2

This safety data sheet was created pursuant to the requirements of 29 CFR 1910.1200

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product identifier**

**Product Name** Ammonium Persulfate Reagent (15% w/v)- 2 liter  
**Product Number** 21019  
**Synonyms** None

**Recommended use of the chemical and restrictions on use**

**Recommended Use** For Research and Development purposes only. Must only be handled by technically qualified individuals  
**Uses advised against** No information available

**Details of the supplier of the safety data sheet**

**Supplier** ERA, A Waters Company  
**Supplier Address** 16341 Table Mountain Parkway, Golden, CO 80403 USA  
**Non-Emergency Telephone Number** +1-303-431-8454  
**E-mail address** sdsinfo@eraqc.com

**Emergency telephone number**

**Company Emergency Phone Number** In case of EMERGENCY call CHEMTREC Day or Night  
Within USA and Canada: 800-424-9300  
International Call Collect: +1-703-527-3887

**2. Hazard(s) identification****Classification**

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

Skin Corrosion/Irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Respiratory Sensitization	Category 1
Skin Sensitization	Category 1

**GHS Label elements, including precautionary statements****EMERGENCY OVERVIEW**

<b>Signal Word</b>	<b>DANGER</b>
<b>hazard statements</b>	CAUSES SKIN IRRITATION Causes serious eye irritation May cause allergy or asthma symptoms or breathing difficulties if inhaled May cause an allergic skin reaction



**Appearance** No information available      **Physical state** No information available      **Odor** No information available

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Wear protective gloves/protective clothing/eye protection/face protection  
Avoid breathing dust/fume/gas/mist/vapors/spray  
In case of inadequate ventilation wear respiratory protection  
Contaminated work clothing should not be allowed out of the workplace  
Wear eye/face protection

**Precautionary Statements - Response**

Specific treatment (see supplemental first aid instructions on this label)

**EYES**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention

**skin**

IF ON SKIN: Wash with plenty of soap and water  
Take off contaminated clothing and wash before reuse  
If skin irritation or rash occurs: Get medical advice/attention

**INHALATION**

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing  
If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

**Precautionary Statements - Storage**

None

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards Not Otherwise Classified (HNOC)**

Not Applicable

**Unknown toxicity**

0 % of the mixture consists of ingredient(s) of unknown toxicity

**Other information**

MAY BE HARMFUL IF SWALLOWED

Repeated or prolonged skin contact may cause allergic reactions with susceptible persons

**Interactions with other chemicals**

No information available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Note: only the components contributing to the product's GHS hazard classification are listed in this section.

Chemical name	CAS-No	Percent
Ammonium persulfate	7727-54-0	15

#### 4. First-aid measures

##### First aid measures

##### General advice

Show this safety data sheet to the doctor in attendance.

##### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.

##### Skin Contact

Wash off immediately with soap and plenty of water for at least 15 minutes. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.

##### INHALATION

Remove to fresh air. Get medical attention immediately if symptoms occur. MAY CAUSE ALLERGIC RESPIRATORY REACTION. If breathing has stopped, give artificial respiration. Get medical attention immediately. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

##### INGESTION

Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. May produce an allergic reaction. If an allergic reaction occurs, stop use and seek medical help right away. Call a physician or poison control center immediately.

##### Self-Protection of the First Aider

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Wear personal protective clothing (see section 8). Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

##### Most important symptoms and effects, both acute and delayed

##### Most important symptoms and effects

Burning sensation. Itching. Rashes. Hives. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or wheezing.

##### Indication of any immediate medical attention and special treatment needed

##### Notes to physician

May cause sensitization in susceptible persons. Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Unsuitable Extinguishing Media

CAUTION: Use of water spray when fighting fire may be inefficient.

### Specific Hazards Arising from the Chemical

Product is or contains a sensitizer. May cause sensitization by inhalation and skin contact. May cause sensitization by skin contact.

#### **Uniform Fire Code**

Sensitizer: Liquid

### Hazardous Combustion Products

Carbon oxides.

### Explosion Data

**Sensitivity to mechanical impact** NO.

**Sensitivity to static discharge** NO.

### 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**

Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

#### **OTHER INFORMATION**

Refer to protective measures listed in Sections 7 and 8.

### Environmental precautions

#### **Environmental Precautions**

Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so.

### 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**

Pick up and transfer to properly labeled containers. Soak up with inert absorbent material.

## 7. Handling and Storage

### Precautions for safe handling

**Handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

### Conditions for safe storage, including any incompatibilities

**Storage** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

**Incompatible products** Strong acids. Strong oxidizing agents. Strong bases.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

**Exposure guidelines** The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ammonium persulfate 7727-54-0	TWA: 0.1 mg/m <sup>3</sup> Persulfate	-	

*ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits NIOSH IDLH Immediately Dangerous to Life or Health*

### Appropriate engineering controls

**Engineering Measures** Showers  
Eyewash stations  
Ventilation systems

### Individual protection measures, such as personal protective equipment

**Eye/Face Protection** If splashes are likely to occur. Wear safety glasses with side shields (or goggles). None required for consumer use.

**Skin and Body Protection** Wear protective gloves and protective clothing. Long sleeved clothing. Impervious gloves.

**Respiratory Protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical and Chemical Properties

**Physical state** No information available

<b>Appearance</b>	No information available	<b>Odor</b>	No information available
<b>Color</b>	No information available	<b>Odor Threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
<b>pH</b>	No data available		
<b>Melting / freezing point</b>	No data available	None known	
<b>Boiling point / boiling range</b>	No data available	None known	
<b>Flash Point</b>	No data available	None known	
<b>Evaporation Rate</b>	No data available	None known	
<b>Flammability (solid, gas)</b>	No data available	None known	
<b>Flammability Limit in Air</b>			
<b>Upper flammability limit</b>	No data available		
<b>Lower flammability limit</b>	No data available		
<b>Vapor pressure</b>	No data available	None known	
<b>Vapor density</b>	No data available	None known	
<b>Specific gravity</b>	1.09		
<b>Water Solubility</b>	No data available		
<b>Solubility in Other Solvents</b>	no data available	None known	
<b>Partition coefficient: n-octanol/water</b>	No data available		
<b>Autoignition temperature</b>	No data available	None known	
<b>Decomposition temperature</b>	No data available	None known	
<b>Kinematic viscosity</b>	No data available	None known	
<b>Dynamic viscosity</b>	No data available	None known	
<b>Explosive Properties</b>	no data available		
<b>Oxidizing Properties</b>	no data available		

**Other Information**

<b>Softening Point</b>	No data available
<b>VOC Content (%)</b>	No data available
<b>Particle Size</b>	No data available
<b>Particle Size Distribution</b>	

## 10. STABILITY AND REACTIVITY

**Reactivity**

no data available.

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous Polymerization**

Hazardous polymerization does not occur.

**Conditions to avoid**

None known based on information supplied.

**Incompatible materials**

Strong acids. Strong oxidizing agents. Strong bases.

**Hazardous Decomposition Products**

Carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

**Product information**

<b>INHALATION</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause sensitization in susceptible persons. (based on components).
<b>Eye Contact</b>	Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
<b>Skin Contact</b>	Specific test data for the substance or mixture is not available. CAUSES SKIN IRRITATION. (based on components). Prolonged contact may cause redness and irritation. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
<b>INGESTION</b>	Specific test data for the substance or mixture is not available. Ingestion may cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause additional affects as listed under "Inhalation".

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium persulfate 7727-54-0	= 495 mg/kg ( Rat )	> 10000 mg/kg ( Rabbit )	= 520 mg/L ( Rat ) 1 h

**Information on toxicological effects**

<b>Symptoms</b>	Erythema (skin redness). May cause redness and tearing of the eyes. Itching. Rashes. Hives. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Coughing and/ or wheezing.
-----------------	--

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

<b>sensitization</b>	May cause sensitization in susceptible persons. May cause sensitization by skin contact. May cause sensitization by inhalation.
<b>carcinogenicity</b>	Contains no ingredient listed as a carcinogen.
<b>Reproductive Toxicity</b>	No information available.
<b>STOT - Single Exposure</b>	No information available.
<b>STOT - Repeated Exposure</b>	No information available.
<b>Chronic toxicity</b>	No known effect based on information supplied. Prolonged exposure may cause chronic effects. Repeated contact may cause allergic reactions in very susceptible persons.
<b>Target organ effects</b>	Respiratory System. EYES. skin.
<b>Aspiration hazard</b>	No information available.

**Numerical measures of toxicity Product Information**

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

**ATEmix (oral)**

3,260.00 mg/kg

**ATEmix (inhalation-dust/mist)**

867.00 mg/l

## 12. ECOLOGICAL INFORMATION

### ecotoxicity

The environmental impact of this product has not been fully investigated.

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

### Persistence and Degradability

No information available.

### Bioaccumulation

No information available

### Other adverse effects

No information available.

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

#### **Disposal Methods**

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

#### **Contaminated packaging**

Dispose of contents/containers in accordance with local regulations.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical name	California Hazardous Waste
Ammonium persulfate 7727-54-0	Ignitable Reactive

## 14. TRANSPORT INFORMATION

Transportation classifications may vary depending on the quantity per package and may be influenced by regional or country variations in regulations.

### DOT

**Proper Shipping Name** NON-REGULATED  
**Hazard Class** N/A

### TDG

Not regulated

### MEX

Not regulated

### ICAO

Not regulated



<b>IATA</b>	Not regulated
<b>Proper Shipping Name</b>	NON REGULATED
<b>IMDG/IMO</b>	Not regulated
<b>RID</b>	Not regulated
<b>ADR</b>	Not regulated
<b>ADN</b>	Not regulated

## 15. REGULATORY INFORMATION

### International Inventories

<b>TSCA</b>	Contact supplier for inventory compliance status
<b>DSL</b>	Contact supplier for inventory compliance status

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

### US 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

Chemical name	CAS-No	Percent	SARA 313 - Threshold Values %
Ammonium persulfate - 7727-54-0	7727-54-0	15	1.0

#### **SARA 311/312 Hazard Categories**

<b>Acute health hazard</b>	NO
<b>Chronic health hazard</b>	NO
<b>Fire hazard</b>	NO
<b>Sudden Release of Pressure Hazard</b>	NO
<b>Reactive hazard</b>	NO

#### **CWA (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)

#### **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

### US State Regulations

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

#### **U.S. State Right-to-Know Regulations**

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Ammonium persulfate 7727-54-0	X			X	

### International regulations

**CANADA**  
**WHMIS Hazard Class**  
 Not Determined

### 16. OTHER INFORMATION

<b>NFPA</b>	<b>Health hazards</b> 2	<b>flammability</b> 0	<b>Instability</b> 0	<b>Physical and chemical hazards - PERSONAL PROTECTION X</b>
<b>HMIS</b>	<b>Health hazards</b> 2 *	<b>flammability</b> 0	<b>Physical hazard</b> 0	

**Chronic Hazard Star Legend** \* = Chronic Health Hazard

<b>Prepared By</b>	Product Stewardship 23 British American Blvd. Latham, NY 12110 1-800-572-6501
<b>Issuing Date</b>	19-Nov-2015
<b>Revision Date</b>	22-Jan-2018
<b>Revision Note</b>	No information available

#### Disclaimer

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text



The supplier identified below generated this SDS using the UL SDS template. UL did not test, certify, or approve the substance described in this SDS, and all information in this SDS was provided by the supplier or was reproduced from publically available regulatory data sources. UL makes no representations or warranties regarding the completeness or accuracy of the information in this SDS and disclaims all liability in connection with the use of this information or the substance described in this SDS. The layout, appearance and format of this SDS is © 2014 UL LLC. All rights reserved

**End of Safety Data Sheet**