

## 1. Product And Company Identification

**Product Name: AS-5415**

**Synonyms/ Use: Sodium permanganate**

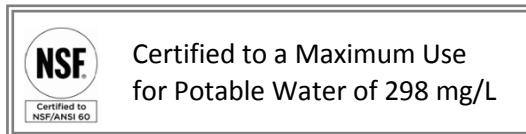
**Manufacturer/Supplier:**

Applied Specialties, Inc.

33555 Pin Oak Parkway

Avon Lake, OH 44012

Customer Information Number: 440-933-9442



For Chemical Emergency Spills, Leaks, Fire, Exposure or Accident: call Chemtrec 800-424-9300 Day or Night

## 2. Hazardous Identification

Signal Word: **Danger**

Pictograms:



**Hazard Statement(s):** Causes severe skin burns and eye damage. May intensify fire; oxidizer. Harmful if swallowed. Very toxic to aquatic life.

### Precautionary Statement(s):

<b>Prevention</b>	Keep away from heat, sparks, open flames and hot surfaces.	(P210)
	Keep away from clothing and any other combustible materials.	(P220)
	Take any precaution to avoid mixing with combustible materials.	(P221)
	Do not breathe dust or vapors (Aspiration hazard if inhaled or swallowed)	(P260)
	Do not get in eyes, on skin, or on clothing.	(P262)
	Wash hands thoroughly after handling.	(P264)
	Do not eat, drink or smoke when using this product.	(P270)
	Wear protective gloves and eye/ face protection.	(P280)

**Carcinogenicity:** None of the components in this product at concentrations greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

**Reproductive toxicity:** No reproductive effects reported

**Teratogenicity:** No teratogenic effects reported

**Genotoxicity:** No mutagenic effects reported

### Precautionary Statements for response, storage, and disposal

Specific treatment (see first aid section of label).	(P321)
Take off contaminated clothing and wash before reuse.	(P362)
Wash contaminated clothing before reuse.	(P363)
Store locked up.	(P405)
Dispose of contents and container in compliance with local, state, and federal regulations.	(P501)



### 3. Chemical Composition

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Component	CAS Number	Wt%
Sodium permanganate	10101-50-5	12 - 15

Chemical identity of some ingredients may be withheld as confidential as permitted by 29 CFR 1910.1200 and various State right to know laws.

### 4. First Aid Measures

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**General Advice:** Remove contaminated clothing immediately.

**Eye Contact:** Immediately flush eyes with large amounts of running water for at least 15 minutes, lifting the lower and upper lids. Consult an ophthalmologist immediately.

**Skin Contact:** Wash thoroughly with soap and water to remove any chemical from skin. Get medical attention. Contaminated clothing should be removed and laundered.

**Inhalation:** If difficulties occur after product has been inhaled, remove to fresh air and get medical attention. If breathing has stopped start artificial respirations and call 911. If direct contact during rescue breathing poses a threat to the first aid provider, avoid mouth-to-mouth contact by using a barrier device.

**Ingestion:** Immediately rinse mouth. Get medical attention immediately. Do not induce vomiting. Never give anything by mouth to an unconscious person or if person is having convulsions. If vomiting occurs naturally, have casualty lean forward to reduce the risk of aspiration.

### 5. Fire Fighting Measures

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Flash Point and Method: Not combustible or flammable.

**Extinguishing Media**

Use water fog or spray, dry chemical, foam, or carbon dioxide. If water is used, restrict pedestrian and vehicular traffic in areas where exposure could occur.

**General Hazard**

Restrict pedestrian and vehicular traffic. Keep upwind. Avoid bodily contact with the material. Containers can build pressure if exposed to heat. Cool containers using water.

**Fire Fighting Equipment**

Wear NIOSH/MSHA approved, pressure-demand self-contained breathing apparatus and full protective gear. The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed in accordance with all federal, state and local regulations.

### 6. Accidental Release Measures

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Restrict access until clean-up operations are complete. Wear appropriate Personal Protective Equipment and stay upwind. Note that spills pose a slip hazard.

1. Dike around the spill area to prevent spreading.
2. Remove all incompatible materials before attempting clean-up.
3. For small spills: Absorb or cover with dry earth, sand, or other non-combustible, inert material. Do not use saw dust. Place into loosely covered plastic containers for later disposal.
4. For large spills: Dike around spill using dry earth or sand. Collect into plastic containers for later disposal.



- 5. Flush residue with abundant amounts of water, and discharge to sewer only if permitted by appropriate environmental agency.
  - 6. Dispose of all material in accordance with to all FEDERAL, STATE AND LOCAL REGULATIONS.
- NOTE: DO NOT wash or pour into any surface waters/ground waters or streams or directly into sewers.

7. Handling and Storage

Handling

Avoid inhalation of vapors. Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Practice good industrial hygiene. Wash after handling and before eating, drinking, or smoking.

Storage

Keep container tightly closed in a cool, dry and well-ventilated place away from direct sunlight. Do not store near incompatible materials. Keep away from strong acids, peroxides, formaldehyde, combustible, organic, and reducing agents. Store in a secured place.  
Temperature Tolerance – Avoid extremes.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits

Sodium permanganate 5.0 mg/m<sup>3</sup> TLV-TWA: ACGIH

Exposure Guidelines

Work in well ventilated areas. Do not breathe vapor or mist. Wear protective clothing as necessary to minimize contact. Handle in accordance with good industrial hygiene and safety practice.

Engineering Controls

Use process enclosures, local exhaust ventilation, or other engineering controls to reduce airborne levels below established guidelines. Use local exhaust ventilation in areas where these levels may be exceeded.

Personal Protection

- Respirator: Wear a NIOSH/MSHA approved or equivalent vapor/particulate respirator as necessary.
- Eye Protection: Tight fitting safety goggles and face shield
- Gloves: Chemical resistant gloves and check with glove manufacturers' recommendations, consider all work functions when selecting the best glove
- Clothing: Impermeable protective clothing as necessary to minimize contact.
- Other: Eye wash and safety showers should be in immediate work area; practice good industrial hygiene and safety practices. Refer to Section 3 for exposure limits.

9. Physical And Chemical Properties

Appearance	Dark purple liquid
Odor	Odorless
Boiling Point	101°C
Freezing Point	-1.0°C
Flash Point	Not applicable
Specific Gravity	1.09 – 1.14 g/mL
Product pH	6 – 9 (@ 5%)
Solubility In Water	100%

## 10. Stability And Reactivity

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Stability	The product is stable under normal conditions.
Hazardous Reactions	May react violently with incompatible materials.
Incompatibilities	Reactive with reducing agents, strong acids, peroxides, combustible organic materials, readily oxidizable materials, and metal powders.
Materials to avoid	Avoid contact with reducing agents, strong acids, peroxides, combustible organic materials, readily oxidizable materials, and metal powders.
Hazardous Decomposition Products	Reaction with hydrochloric acid releases chlorine gas.

## 11. Toxicological Information

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### *Acute Toxicity for Potassium permanganate*

Oral Rat	LD <sub>50</sub>	2,080 mg/kg
Irritation/Corrosion	Skin	Irritant
	Inhalation	Irritant
Chronic Toxicity	Prolonged exposure to heavy concentration of manganese oxides may lead to chronic	
Sensitization	manganese poisoning, involving the central nervous system.	
Carcinogenicity	This product does not contain any carcinogens or potential carcinogens as listed by IARC, NTP, ACGIH, or OSHA.	
Mutagenicity	No data available	
Reproductive Toxicity	No data available	
Cytotoxicity	No data available	
Target organs	n/a	

## 12. Ecological Information

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### *Aquatic toxicity for Potassium permanganate*

Ecotoxicity	May be harmful to aquatic life	
Toxicity to Fish	Rainbow Trout	4.8 mg/L
	Bluegill Sunfish	6.1 mg/L
Mobility in soil	Miscible in water	
Bioaccumulation	Accumulation in organisms is not to be expected.	
Biodegradation	Permanganate has a low estimated lifetime in the environment.	

## 13. Disposal Considerations

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### **Product Residues**

Disposal – Dispose in accordance with all federal, state, and local regulations. It is the waste generator's responsibility to determine if a particular waste is hazardous under RCRA

### **Used Packaging**

Dispose of in a licensed facility and in compliance with local, state, and federal regulations. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.



14. Transport Information

Proper Shipping Name	Permanganates, inorganic, aqueous solution, n.o.s. (contains sodium permanganate)
Hazard Class	5.1
Identification Number	UN 3214
Packaging Group	II
Label Required	Oxidizer

15. Regulatory Information

Federal Regulations

CERCLA/SUPERFUND (40 CFR 117, Section 302)

Component	CAS Number	Reportable Quantity
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SARA EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355)

Component	CAS Number	Reportable Quantity
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SARA HAZARD CATEGORIES (40 CFR 370, Sections 311, 312)

[ X ] Acute [ X ] Chronic [ ] Fire [ ] Pressure [ X ] Reactive [ ] None

SARA TOXIC SUBSTANCES (40 CFR 372, Section 313)

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the emergency planning and Right – to – know Act of 1986 and of 40CFR 372.

Component	CAS Number
Sodium permanganate	10101-50-5

US TOXIC SUBSTANCES CONTROL ACT/INVENTORY STATUS (TSCA)

All components are listed

RCRA STATUS

It is the waste generator’s responsibility to determine if a particular waste is hazardous under RCRA

NTP, IARC, OSHA, & ACGIH STATUS

None of the components in this product at concentrations greater than 0.1% are listed

DOT REPORTABLE QUANTITY (RQ) (49 CFR, Subchapter C, Section 172.101, Appendix A)

Component	CAS Number	Concentration	RQ
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State Regulations

PENNSYLVANIA, NEW JERSEY, and MASSACHUSETTS RIGHT-TO-KNOW INFORMATION:

Component	CAS Number
Sodium permanganate	10101-50-5

CALIFORNIA PROPOSITION 65: THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER OR REPRODUCTIVE HARM.



## Other Information

This information is given without any warranty or representation and is presented in good faith and believed to be accurate. We do not assume any legal responsibility for same, nor do we give permission, inducement, or recommendation to practice any patented invention without a license. It is offered solely for your consideration, investigation and verification. Before using any product, read its label carefully and completely.

**Revision 5/ Supersedes 3/10/11 / mtl**

Revisions: format, all sections