

Product Name: Aqua Smarte Plus Shine
Revision Date: February 1, 2012
Supersedes: New MSDS

Revision: 1

1. Identification of the substance and company

Chemical Name: Potassium Peroxymonosulfate compound
Product use: Oxidizing agent
Supplier: King Technology, Inc
530 11th Ave S, Hopkins, MN 55343, USA
Phone (952) 933-6118
Emergency Telephone: Chemtrec (800) 424-9300 (outside the U.S. 1-703-527-3887)

2. Composition / information on ingredients

Components	Weight %
Pentapotassium bis(peroxymonosulphate) bis(sulphate) CAS No: 70693-62-8	86 - 96
Dipotassium peroxodisulphate CAS No: 7727-21-1	0 - 5
Tetra[carbonato(2-)]dihydroxypentamagnesium CAS No: 7760-50-1	1 - 2

3. Hazards identification**Potential Health Effects:**

- Eye Contact:** Corrosive, may cause permanent eye injury if not promptly treated.
- Skin Contact:** Severe skin irritation. Effects of skin contacts may include; Erythema, Burns, Cracking of skin.
- Inhalation:** May cause irritation of respiratory tract. Nose bleeding, coughing discomfort.
- Ingestion:** Prolonged contact may cause: inflammation of the stomach (gastritis).

HMIS Classification (scale 0-4): Health = 3, Fire = 0, Reactivity = 1
PPE: Personal Protection rating to be supplied by user depending on use conditions.

Carcinogenicity: None of these components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

4. First-aid measures

Eye contact: Rinse immediately with plenty of water and seek medical advice.

Skin contact: If on skin, rinse well with water. Take off contaminated clothing and shoes immediately. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.



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4. First-aid measures (continued)

Inhalation: Move to fresh air. Oxygen or artificial respiration if needed. Call a physician immediately.

Ingestion: Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Call physician immediately.

5. Firefighting measures

The product itself does not burn.

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Do not use Carbon dioxide (CO₂)

Flash Point: Does not flash

Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases: Oxygen, Sulfur dioxide, Sulfur trioxide

Special protective equipment for firefighting: In the event of a fire, wear self-contained breathing apparatus and protective suit.

6. Accidental release measures

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Personnel precautions: Evacuate personnel to safe areas. Use personal protective equipment.

Spill Cleanup: Sweep up and shovel into suitable containers for disposal. Avoid dust formation. After cleaning, flush away traces with water.

Accidental Release Measures: Try to prevent the material from entering drains or water courses. Dispose of in accordance with local regulations.

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7. Handling and storage

Handling (Personnel): Use only in well-ventilated areas. Do not breathe dust. Avoid dust formation in confined areas. Avoid contact with skin and eyes. Keep away from heat and flame.
Wash hands before breaks and immediately after handling the product.
Handle in accordance with good industrial hygiene and safety practice.

Storage: Keep in dry, cool and well-ventilated place. Protect from contamination. Store in original container.
Keep away from: Combustible material, never allow product to get in contact with water during storage.
Stable under recommended storage conditions.

8. Exposure Controls and Personal Protection

Engineering controls: Ensure adequate ventilation.

Exposure Guidelines: Exposure Limit Values

Pentapotassium bis(peroxymonosulphate) bis(sulphate)
AEL* (DUPONT) 1 mg/m³ 8 & 12 hr TWA total dust

Dipotassium peroxodisulphate
TLV (ACGIH) 0.1 mg/m³ TWA as persulfate

Potassium sulfate
AEL* (DUPONT) 10 mg/m³ 8 hr. TWA

*AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

Personal protective equipment:

Respiratory protection: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection: Material – impervious gloves.

Eye protection: Wear safety glasses or coverall chemical splash goggles.

Skin and body protection: Where there is potential for skin contact, have available and wear as appropriate, impervious gloves, apron, pants, jacket, hood and boots.
Remove and wash contaminated clothing before re-use.

General protective and hygiene measures: When using do not eat or drink. Do not breath dust.

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9. Physical and chemical properties

Form: Granular
Color/Appearance: White
Physical State: Solid
Odor: none

Changes in physical state:

Melting point / range: Decomposes before melting.
Oxidizing: The product is not oxidizing.
Bulk Density: 1,100 – 1,400 kg/m³
Solubility in water: 2.35 at 20 °C (68 °F)
pH: 2.1 at 30 g/L 20 °C (68 °F)
Vapour Pressure: < 0.0000017 hPa
Water Solubility: 297 – 357 g/L at 22 °C (72 °F)

10. Stability and reactivity

Stability: Stable under recommended storage conditions
Conditions to avoid: Temperature > 50 ° C (> 122 ° F). Avoid extreme heat
Incompatibility: Halogenated compounds, Cyanides, Heavy metal salts
Hazardous decomposition products: Hazardous decomposition products: Oxygen, Sulfur dioxide, Sulfur trioxide

11. Toxicological information

Potassium Peroxymonosulfate compound:

Inhalation 4 h LC50 > 5 mg/l, rate
Skin irritation Causes burns, rabbit
Eye irritation Severe eye irritation, rabbit
Sensitization Did not cause sensitization on laboratory animals, guinea pig.
Did not cause sensitization on laboratory animals.
May cause sensitization of susceptible persons by skin contact or by inhalation of dust.

Pentapotassium bis(peroxymonosulphate) bis(sulphate):

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11. Toxicological information (continued)

Pentapotassium bis(peroxymonosulphate) bis(sulphate):

Dermal LD50, rat
Dose: >2,000 mg/kg

Oral LD50, rat
Dose: 500 mg/kg

Repeated dose toxicity Inhalation
Rat
Reversible, corneal damage

Oral
Rat
Gastrointestinal effects

Mutagenicity Did not cause genetic damage in animals.
Tests on mammalian cell cultures showed mutagenic effects.
Did not cause genetic damage in cultured bacterial cells.
Overall weight of evidence indicates that the substance is not mutagenic.

Teratogenicity Animal testing showed effects on embryo-fetal development at levels to or above those causing maternal toxicity.

Dipotassium peroxodisulphate

Dermal LD50, Rabbit
Dose: > 10,000 mg/kg

Oral LD50, Rat
Dose: 802 mg/kg

Mutagenicity Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

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12. Ecological information

The following ecotoxicological data refer to:

Pentapotassium bis(peroxymonosulphate) bis(sulphate):

96 h LC50 Cyprinodon variegatus (sheepshead minnow) 1.09 mg/L
72 h ErC50 Algae > 1 mg/L
48 h EC50 Daphnia 3.5 mg/L

Dipotassium peroxodisulphate

48 h LC50 Daphnia magna (Water flea) 92 mg/L

Environmental Fate: Pentapotassium bis(peroxymonosulphate) bis(sulphate):

Biodegradability: Readily biodegradable
Bioaccumulation: Bioaccumulation is unlikely.

13. Disposal considerations

Waste Disposal: Dispose of in accordance with local regulations.
Environmental Hazards: If recycling is not practicable, dispose of in compliance with local regulations.

14. Transportation information

US DOT: UN Number: 3260
Proper shipping name: Corrosive solid, acidic, inorganic, n.o.s.
(Monopersulfate compound)
Class: 8
Packing Group: II
Labels: 8

IATA_C: UN Number: 3260
Proper shipping name: Corrosive solid, acidic, inorganic, n.o.s.
(Monopersulfate compound)
Class: 8
Packing Group: II
Labels: 8

IMDG: UN Number: 3260
Proper shipping name: Corrosive solid, acidic, inorganic, n.o.s.
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Class: 8
Packing Group: II
Labels: 8



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15. Regulatory information

TSCS Status On the inventory, or in compliance with the inventory

SARA 313 Regulated Chemical(s) SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Title III hazard classification Acute Health Hazard: Yes
Chronic Health Hazard: No
Fire: No
Reactivity/Physical hazard: No
Pressures: No

California Prop. 65 Chemicals known to the State of California to cause cancer, birth defects or any other harm: none known

NJ Right to Know Regulated Chemical(s) Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% for substances identified as carcinogens, mutagens or teratogens): Potassium hydrogensulphate

Active Compound: Active Ingredient in this composition is Potassium Peroxymonosulfate, CAS No: 10058-23-8, Concentration 43 – 47%

16. Other information

The information in this Material Safety Data Sheet should be provided to all who use, handle, store, transport, or otherwise be exposed to this product. This information has been prepared for the guidance of plant engineering, operations and management, and for persons working with or handling this product. Additionally, if this Material Safety Data Sheet is more than three years old you should contact King Technology to make certain that this sheet is current.

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End of safety data sheet