Oxone® PS-16 Monopersulfate compound

Version 2.0

Revision Date 11/11/2014 Ref. 130000026038

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Oxone® PS-16 Monopersulfate compound
Product Use	:	Cleaning agent, Oxidizing agent, For industrial use only.
Restrictions on use	:	Do not use product for anything outside of the above specified uses
Manufacturer/Supplier	:	DuPont 1007 Market Street Wilmington, DE 19898
Product Information	:	1-800-441-7515 (outside the U.S. 1-302-774-1000)
Medical Emergency	:	1-800-441-3637 (outside the U.S. 1-302-774-1139)
Transport Emergency	:	CHEMTREC: +1-800-424-9300 (outside the U.S. +1-703-527-3887)
Other information	:	See Section 15: Regulatory Information for active substance guidance. professional use

SECTION 2. HAZARDS IDENTIFICATION

Product hazard category

Acute toxicity (Oral)	Category 4
Skin corrosion	Category 1B
Serious eye damage/eye irritation	Category 1

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Label content

Pictogram :

Signal word : Danger

Hazardous warnings : Harmful if swallowed.
Causes severe skin burns and eye damage.

Hazardous prevention measures : Do not breathe dust or mist.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/ physician.
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents/ container to an approved waste disposal plant.

Other hazards

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: 11.92 %

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

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

SECTION 4. FIRST AID MEASURES

General advice : When symptoms persist or in all cases of doubt seek medical advice.

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

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.

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

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

Most important symptoms/effects, acute and delayed : No applicable data available.

Protection of first-aiders : No applicable data available.

Notes to physician : No applicable data available.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	Carbon dioxide (CO2)
Specific hazards	:	The product itself does not burn. Hazardous decomposition products Oxygen, Sulphur dioxide, Sulfur trioxide
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus and protective suit.
Further information	:	No applicable data available.

SECTION 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.

Safeguards (Personnel)	:	Evacuate personnel to safe areas. Use personal protective equipment.
Environmental precautions	:	Try to prevent the material from entering drains or water courses.
Spill Cleanup	:	Sweep up and shovel into suitable containers for disposal. Avoid dust formation. After cleaning, flush away traces with water.
Accidental Release Measures	:	Dispose of in accordance with local regulations.

SECTION 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.

Handling (Physical Aspects) : No applicable data available.
Dust explosion class : No applicable data available.
Storage : Keep in a 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.

Storage period : No applicable data available.

Storage temperature : No applicable data available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls : Ensure adequate ventilation.

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.

Protective measures : When using do not eat or drink. Do not breathe dust.

Exposure Guidelines
Exposure Limit Values

Pentapotassium bis(peroxymonosulphate) bis(sulphate)

AEL *	(DUPONT)	1 mg/m3	15 minute TWA

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (Physical state, form, colour, etc.)

Form	:	Solid form, granular
Color	:	white
Odor	:	none
Odor threshold	:	No applicable data available.
pH	:	2.1 at 30 g/l 20 °C (68 °F)
Melting point/freezing point	:	Melting point Decomposes before melting.
Boiling point/boiling range	:	Boiling point Not applicable
Flash point	:	does not flash
Evaporation rate	:	No applicable data available.
Flammability (solid, gas)	:	The product itself does not burn, but it is slightly oxidising (active oxygen content ca. 2%). The product is not flammable.
Upper explosion limit	:	No applicable data available.
Lower explosion limit	:	No applicable data available.

Vapor pressure	:	< 0.0000017 hPa
Vapour density	:	No applicable data available.
Density	:	No applicable data available.
Specific gravity (Relative density)	:	2.35 at 20 °C (68 °F)
Bulk density	:	1,100 - 1,400 kg/m3
Water solubility	:	297 - 357 g/l at 22 °C (72 °F)
Solubility(ies)	:	No applicable data available.
Partition coefficient: n-octanol/water	:	No applicable data available.
Ignition temperature	:	no data available
Auto-ignition temperature	:	No applicable data available.
Decomposition temperature	:	No applicable data available.
Viscosity	:	No applicable data available.
Oxidising Substance	:	The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No applicable data available.
Conditions to avoid	:	Temperature > 50 °C (> 122 °F) Avoid extreme heat.
Incompatible materials	:	Halogenated compounds Cyanides, Heavy metal salts

Hazardous decomposition products	:	Hazardous decomposition products: Oxygen , Sulphur dioxide, Sulfur trioxide

SECTION 11. TOXICOLOGICAL INFORMATION

Oxone® PS-16 Monopersulfate compound

Inhalation 4 h LC50	:	> 5 mg/l , Rat
Skin irritation	:	Causes burns., Rabbit
Eye irritation	:	Severe eye irritation, Rabbit
Sensitisation	:	Did not cause sensitisation on laboratory animals., Guinea pig May cause sensitisation of susceptible persons by skin contact or by inhalation of dust.

Pentapotassium bis(peroxymonosulphate) bis(sulphate)

Dermal LD50	:	> 2,000 mg/kg , Rat
Oral LD50	:	500 mg/kg , Rat
Mutagenicity	:	Animal testing did not show any mutagenic effects. Did not cause genetic damage in cultured bacterial cells. Tests on mammalian cell cultures showed mutagenic effects. Evidence suggests this substance does not cause genetic damage in animals.
Teratogenicity	:	Animal testing showed no developmental toxicity.

Dipotassium peroxodisulphate

Dermal LD50	:	> 10,000 mg/kg , Rabbit
Oral LD50	:	1,130 mg/kg , Rat
Repeated dose toxicity	:	Oral Rat - NOAEL: 131.5 mg/kgMethod: OECD Test Guideline 407 No toxicologically significant effects were found.
Carcinogenicity	:	Not classifiable as a human carcinogen.

Animal testing did not show any carcinogenic effects.
Information given is based on data obtained from similar substances.

Mutagenicity : Animal testing did not show any mutagenic effects.
Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Information given is based on data obtained from similar substances.

Reproductive toxicity : No toxicity to reproduction
Animal testing showed no reproductive toxicity.
Information given is based on data obtained from similar substances.

Teratogenicity : Animal testing showed no developmental toxicity.
Information given is based on data obtained from similar substances.

Tetra[carbonato(2-)]dihydroxypentamagnesium

Oral LD50 : > 2,000 mg/kg , Rat
Information given is based on data obtained from similar substances.

Repeated dose toxicity : Oral
Rat
- 90 d
NOAEL: 1,531 mg/kgMethod: OECD Test Guideline 408
No toxicologically significant effects were found., Information given is based on data obtained from similar substances.

Carcinogenicity : Not classifiable as a human carcinogen.
Information given is based on data obtained from similar substances.
Animal testing did not show any carcinogenic effects.

Mutagenicity : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Evidence suggests this substance does not cause genetic damage in animals.
Information given is based on data obtained from similar substances.

Reproductive toxicity : No toxicity to reproduction
Information given is based on data obtained from similar substances.
Animal testing showed no reproductive toxicity.

Teratogenicity : Information given is based on data obtained from similar substances.
Animal testing showed no developmental toxicity.

Carcinogenicity

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

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity

Pentapotassium bis(peroxymonosulphate) bis(sulphate)

96 h LC50	:	Cyprinodon variegatus (sheepshead minnow) 1.09 mg/l Directive 67/548/EEC, Annex V, C.1.
96 h ErC50	:	Selenastrum capricornutum (green algae) > 1 mg/l OECD Test Guideline 201
72 h NOEC	:	Selenastrum capricornutum (green algae) 0.5 mg/l
48 h EC50	:	Daphnia magna (Water flea) 3.5 mg/l OECD Test Guideline 202
37 d	:	NOEC Cyprinodon variegatus (sheepshead minnow) 0.222 mg/l
28 d	:	NOEC Americamysis bahia (mysid shrimp) 0.267 mg/l

Dipotassium peroxodisulphate

96 h LC50	:	Oncorhynchus mykiss (rainbow trout) 76.3 mg/l US EPA Test Guideline OPP 72-1 Information given is based on data obtained from similar substances.
72 h EbC50	:	Pseudokirchneriella subcapitata (green algae) 83.7 mg/l OECD Test Guideline 201 Information given is based on data obtained from similar substances.
72 h NOEC	:	Pseudokirchneriella subcapitata (green algae) 39.2 mg/l OECD Test Guideline 201 Information given is based on data obtained from similar substances.
48 h EC50	:	Daphnia magna (Water flea) 120 mg/l US EPA Test Guideline OPP 72-2 Information given is based on data obtained from similar substances.

Tetra[carbonato(2-)]dihydroxypentamagnesium

96 h LC50	:	Pimephales promelas (fathead minnow) 2,120 mg/l Information given is based on data obtained from similar substances.
72 h EC50	:	Desmodesmus subspicatus (green algae) > 100 mg/l OECD Test Guideline 201 Information given is based on data obtained from similar substances.
72 h NOEC	:	Desmodesmus subspicatus (green algae) 100 mg/l OECD Test Guideline 201 Information given is based on data obtained from similar substances.
48 h EC50	:	Daphnia magna (Water flea) 140 mg/l Information given is based on data obtained from similar substances.
Physico-chemical removability	:	hydrolyses

Environmental Fate

Dipotassium peroxodisulphate

Biodegradability	:	Readily biodegradable.

Tetra[carbonato(2-)]dihydroxypentamagnesium

Biodegradability	:	The methods for determining biodegradability are not applicable to inorganic substances.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste disposal methods - Product	:	Dispose of in accordance with local regulations.
Contaminated packaging	:	If recycling is not practicable, dispose of in compliance with local regulations.

SECTION 14. TRANSPORT INFORMATION

DOT	UN number	:	3260

	Proper shipping name	:	Corrosive solid, acidic, inorganic, n.o.s. (Monopersulfate Compound)
	Class	:	8
	Packing group	:	II
	Labelling No.	:	8
IATA_C	UN number	:	3260
	Proper shipping name	:	Corrosive solid, acidic, inorganic, n.o.s. (Monopersulfate Compound,)
	Class	:	8
	Packing group	:	II
	Labelling No.	:	8
IMDG	UN number	:	3260
	Proper shipping name	:	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Monopersulfate Compound,)
	Class	:	8
	Packing group	:	II
	Labelling No.	:	8

SECTION 15. REGULATORY INFORMATION

TSCA	:	On the inventory, or in compliance with the inventory
Other regulations	:	Active Ingredient in this composition is POTASSIUM PEROXYMONOSULFATE, CAS. No. 10058-23-8, Concentration: 43-47% (Typical 45%) Active ingredient may also be described by the synonym POTASSIUM MONOPERSULFATE.
SARA 313 Regulated Chemical(s)	:	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.
PA Right to Know Regulated Chemical(s)	:	Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): Dipotassium peroxodisulphate
NJ Right to Know Regulated Chemical(s)	:	Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): Dipotassium peroxodisulphate,

Potassium hydrogensulphate

Title III hazard classification	:	Acute Health Hazard: Yes Chronic Health Hazard: No Fire: No Reactivity/Physical hazard: No Pressure: No
California Prop. 65	:	Chemicals known to the State of California to cause cancer, birth defects or any other harm: none known

SECTION 16. OTHER INFORMATION

Revision Date	:	11/11/2014
Contact person	:	MSDS Coordinator, DuPont Chemicals and Fluoroproducts, Wilmington, DE 19898, (800) 441-7515

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.

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