

Version 2.0	Revision Date: 01/04/2019		Number:)0008262	Date of previous issue: 12/04/2018 Country / Language: US / EN			
SECTION	1. IDENTIFICATION						
Produ	uct name	: 0	xone™ PS-16 N	Ionopersulfate Compound			
Mater	rial number	: 5	7747505				
Recommended use			Cleaning agent Oxidizing agents				
Manu	facturer or supplier's						
Supplier		P 1′ P	LANXESS Corporation Product Safety & Regulatory Affairs 111 RIDC Park West Drive PittsburghPA 15275-1112 USA				
Telephone			+1800LANXESS +14128091000 (international)				
Emer	Emergency telephone :		CHEMTREC (800) 424 9300 International (703) 527 3887 Lanxess Emergency Phone: (866) 673 6350				

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Acute toxicity (Oral)		Category 4
Skin corrosion	:	Category 1B
Serious eye damage	:	Category 1
GHS label elements Hazard pictograms	:	
Signal Word	:	Danger
Hazard Statements	:	Harmful if swallowed. Causes severe skin burns and eye damage.
Precautionary Statements	:	Prevention: Do not breathe dusts or mists. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/ protective clothing/ eye protection/ face protection.





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		unwell. Rinse r IF SWALLOW IF ON SKIN (o clothing. Rinse IF INHALED: F for breathing. I IF IN EYES: R Remove conta rinsing. Immed	ED: Call a POISON CENTER/doctor if you feel nouth. ED: Rinse mouth. Do NOT induce vomiting. r hair): Take off immediately all contaminated skin with water/shower. Remove person to fresh air and keep comfortable mmediately call a POISON CENTER/doctor. nse cautiously with water for several minutes. ct lenses, if present and easy to do. Continue iately call a POISON CENTER/doctor. nated clothing before reuse.				
		Storage: Store locked u					
		Disposal:	5.				
		•	Dispose of contents/ container to an approved waste disposal				
	ard Not Otherwise Cl	assified (HNOC)					
		NFORMATION ON ING	REDIENTS				
	stance / Mixture	: Mixture					
Subs							
Haza	ardous ingredients						
Cher	nical name	CAS	-No. Concentration (% w/w)				

Chemical name	CAS-No.	Concentration (% w/w)
pentapotassium bis(peroxymonosulphate)	70693-62-8	>= 90 - <= 100
bis(sulphate)		
potassium hydrogen sulphate	7646-93-7	>= 3 - < 5
Dipotassium peroxodisulphate	7727-21-1	>= 1 - < 5
dipotassium disulphate	7790-62-7	>= 1 - < 3

Content of KMPS as at time of production., Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

SECTION 4. FIRST AID MEASURES

General advice	 Move out of dangerous area. Consult a physician. Show this material safety data sheet to the doctor in attendance. Do not leave the victim unattended.
If inhaled	: Get medical attention if symptoms occur. Remove victim to fresh air and keep at rest in a position com- fortable for breathing.



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		attention imn If it is suspec should wear apparatus. If not breathi occurs, provi professional, Maintain ope	ted that fumes are still present, the rescuer an appropriate mask or self-contained breathing ng, if breathing is irregulor or respiratory arrest de artifical respiration, or oxygen by a trained using a pocket type respirator.				
In cas	se of skin contact	for at least 3 Get medical Remove con	In case of contact, immediately flush skin with plenty of water for at least 30 minutes. Get medical attention immediately. Remove contaminated clothing and shoes. Wash contaminated clothing before re-use.				
In cas	se of eye contact	30 minutes. and that the Remove con Get medical	In case of contact, flush eyes with plenty of water for at least 30 minutes. Use fingers to ensure that eyelids are separated and that the eye is being irrigated. Remove contact lenses. Get medical attention immediately. Chemical burns must be treated promptly by a physician.				
lf swa	allowed	Rinse mouth Remove vict fortable for b Do not induc sonnel. If vomiting ou does not ent Give small a Never give a	im to fresh air and keep at rest in a position com- reathing. e vomiting unless directed to do by medical per- ccurs, the head should be kept low so that vomit				
Most	important symptor	ns and effects, both	acute and delayed				
Sy	vmptoms	Eye: Corrosi ing, burning	ning, burning, and possible permanent damage. we with symptoms of reddening, tearing, swell- and possible permanent damage. ay cause burns to mouth, throat, and stomach.				
Ef	fects	Causes serie	: Harmful if swallowed. Causes serious eye damage. Causes severe burns.				
Notes	s to physician	: No special a	ctions required.				

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : In case of fire, use water spray (fog), foam or dry chemical.



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	Unsuitable extinguishing media		:	Carbon dioxide (C High volume wate					
	Specific fighting	c hazards during fire	:	Do not allow run-off from fire fighting to enter drains or water courses.					
	Hazard ucts	ous combustion prod-	:	 Sulfur oxides Metal oxides Carbon dioxide (CO2) Carbon monoxide 					
	Further information			must not be disch Fire residues and	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.				
	Special protective equipment for fire-fighters		:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.					
SEC	CTION 6	. ACCIDENTAL RELE	ASI	EMEASURES					
	tive equ	al precautions, protec- upment and emer- procedures	:	suitable training. Evacuate personr Keep unnecessar Do not touch or w Provide adequate	y and unprotected personnel from entering. alk through spilled material.				
	Enviror	mental precautions	:	Prevent further lea	rom entering drains. akage or spillage if safe to do so. taminates rivers and lakes or drains inform ities.				
		ls and materials for ment and cleaning up	:	beled waste conta Dispose of wastes Do not allow spille	ion. o up material and place in a designated, la-				
SEC	CTION 7	. HANDLING AND ST	OR	AGE					
	Advice	on oofo handling		Do not got in over	a ar mouth ar an akin				

Advice on safe handling	:	Do not get in eyes or mouth or on skin. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue; observe all precau- tions for product.
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			Do not re-use empty containers. Remove contaminated clothing and protective equipment b fore entering eating areas. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. the particle size measurements of the product indicate that is not respirable and therefore not bioavailable by the inhal- tion route.				
Co	onditio	ns for safe storage	:	Protect from moisture.			
			 Store locked up. Contact with water/moisture causes formation of corrosive reaction products. Store in original container protected from direct sunlight in dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep containers sealed until ready for use. Containers that have been opened must be carefully researed and kept upright to prevent leakage. Do not store in unlabeled containers. Empty containers retain residue and can be dangerous. Do not reuse container. 				
	ecomm erature	nended storage tem-	:	: <122 °F (< 50 °C)			
	urther i ge stab	nformation on stor- ility	: Keep in a dry place.		ce.		
				No decomposition	n if stored and applied as directed.		

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
Dipotassium peroxodisulphate	7727-21-1	TWA	0.1 mg/m3 (Persulphate)	ACGIH
Carbonic acid, magnesium salt (1:1)	546-93-0	TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respir- able fraction)	5 mg/m3	OSHA Z-1

Engineering measures : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

SAFETY DATA SHEET



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Pers	sonal protective equip	ment					
Respiratory protection		:	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.				
Hand protection Material Wearing time		:	Butyl rubber - IIR < 60 min				
Eye protection		:	Wear safety glasses with side shields or goggles. If contact with product is possible, wear safety glasses with side shields. If inhalation hazards exist, a full-face respirator may be re- quired instead.				
Skir	and body protection	:	Wear suitable pro	tective clothing.			
Hygiene measures :		:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.				

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	solid
Appearance	:	granular
Color	:	white
Odor	:	odorless
Odor Threshold	:	No data available
рН	:	2.1 Concentration: 3 %
Melting point/range	:	Decomposition: yes
Boiling point/boiling range	:	No data available
Flash point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit	:	No data available

SAFETY DATA SHEET



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V	/apor p	oressure	:	< 0.0001 hPa (7	7 °F (25 °C))			
R	Relativ	e vapor density	:	: No data available				
R	Relativ	e density	:	No data available	9			
D	Density	/	:	2.35 g/cm ³ (68 °l	= (20 °C))			
В	Bulk de	ensity	:	1,100 - 1,400 kg	′m³			
S	Solubility(ies) Water solubility		:	297 - 357 g/l				
-	Partition coefficient: n- octanol/water		:	No data available	9			
lç	Ignition temperature		:	No data available	9			
D	Decomposition temperature		:	> 122 °F (> 50 °C	C)			
V	Viscosity		:	No data available	9			
E	Explosi	ve properties	:	No data available	9			
C	Dxidiziı	ng properties	:	No data available	e			

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reac- tions	:	Under normal conditions of storage and use, hazardous reac- tions will not occur.
Conditions to avoid	:	Do not expose to temperatures above: 50 °C
Incompatible materials	:	Halogenated compounds Cyanides Metal salt.
Hazardous decomposition products	:	Sulfur oxides Oxygen

SECTION 11. TOXICOLOGICAL INFORMATION

The most important known symptoms and effects are described in Section 2 and/or Section 4.

Acute toxicity

Harmful if swallowed.



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<u>Produ</u> Acute	uct: oral toxicity		at, male and female): 500 mg/kg
		Method: GLP: ye	OECD Test Guideline 423 s
Acute	inhalation toxicity	Exposur Test atn Method:	tat, male and female): > 5 mg/l re time: 4 h nosphere: dust/mist OECD Test Guideline 403 nent: The substance or mixture has no acute inhala- city
		cate tha	s: the particle size measurements of the product indi- t it is not respirable and therefore not bioavailable by lation route.
Acute	dermal toxicity	Method: GLP: ye	s: Extrapolation according to Regulation (EC) No.
Comr	oonents:	440/200	
	ipotassium bis(pero	wmonosulnha	ta) his(sulphata);
-	oral toxicity	: LD50 (R	at, male and female): 500 mg/kg OECD Test Guideline 423
Acute	inhalation toxicity	Exposur Test atn Method: Assessr tion toxi	it, male): > 5 mg/l re time: 4 h hosphere: dust/mist OECD Test Guideline 403 nent: The substance or mixture has no acute inhala- city s: Highest producible concentration.
Acute dermal toxicity		Method:	at, male and female): > 5,000 mg/kg OECD Test Guideline 402 s: Extrapolation according to Regulation (EC) No. 8
potas	sium hydrogen sulp	hate:	
Acute	oral toxicity	: LD50 (R	at): 2,340 mg/kg
Dipot	assium peroxodisul	ohate:	
Acute	oral toxicity	: LD50 (R	at): 700 mg/kg
Acute	inhalation toxicity	Exposur Test atn	nt): > 2.95 mg/l re time: 4 h nosphere: dust/mist s: Highest producible concentration.





nergizing Chemistry

Causes severe burns.

Product:

Species: Rabbit Method: OECD Test Guideline 404 Result: Causes burns.

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

Species: Rabbit Method: OECD Test Guideline 404 Result: Causes burns.

potassium hydrogen sulphate:

Assessment: Causes burns.

Dipotassium peroxodisulphate:

Species: Rabbit Method: OECD Test Guideline 404 Result: Irritating to skin.

dipotassium disulphate:

Assessment: Causes severe burns.

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Species: Rabbit Assessment: Risk of serious damage to eyes.



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Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

Species: Rabbit Result: Risk of serious damage to eyes. Method: OECD Test Guideline 405

Dipotassium peroxodisulphate:

Result: Irritating to eyes.

dipotassium disulphate:

Assessment: Risk of serious damage to eyes.

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Product:

Routes of exposure: Skin contact Species: Guinea pig Method: OECD Test Guideline 406 Result: Did not cause sensitization on laboratory animals. GLP: yes

Routes of exposure: Inhalation Species: Mammal - species unspecified Method: Expert judgment Result: Does not cause respiratory sensitization.

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

Routes of exposure: Skin contact Species: Guinea pig Method: OECD Test Guideline 406 Result: Does not cause skin sensitization.

Dipotassium peroxodisulphate:

Routes of exposure: Inhalation Species: Mammal - species unspecified Result: May cause sensitization by inhalation.

Routes of exposure: Skin contact Species: Mouse Method: OECD Test Guideline 429 Result: May cause sensitization by skin contact.



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Germ	cell mutagenicity		
Not cl	assified based on ava	ailable information.	
<u>Comp</u>	onents:		
penta	potassium bis(pero	xymonosulphate) bis	(sulphate):
-	oxicity in vitro	: Test system: M Metabolic activ	lammalian-Animal ation: with and without metabolic activation Test Guideline 476
			ation: with and without metabolic activation Test Guideline 471
		Metabolic activ	lammalian-Human ation: with and without metabolic activation Test Guideline 473
Genot	oxicity in vivo	: Species: Mamr Application Rou Method: OECD Result: negativ	ute: Oral 9 Test Guideline 474
Dinot	assium peroxodisul	nhate:	
-	oxicity in vitro	-	nutagenic in a standard battery of genetic to
Carci	nogenicity		
	assified based on ava	No ingredient of the	his product present at levels greater than or dentified as probable, possible or confirmed h by IARC.
OSH	4		this product present at levels greater than or n OSHA's list of regulated carcinogens.
NTP			his product present at levels greater than or dentified as a known or anticipated carcinoge
-	oductive toxicity assified based on ava	ailable information	
INUL CI	assineu baseu un ava		

pentapotassium bis(peroxymonosulphate) bis(sulphate):



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Effect	s on fetal development		s: No tera vels tested	togenic or fetotoxic effects were found at al
	-single exposure assified based on avail	able informati	on.	
<u>Comp</u>	oonents:			
-	sium hydrogen sulph ssment: May cause resp		on.	
-	assium peroxodisulpl ssment: May cause resp		on.	
	-repeated exposure assified based on avail	able informati	on.	
Repe	ated dose toxicity			
<u>Comp</u>	oonents:			
penta	potassium bis(peroxy	/monosulpha	te) bis(su	Ilphate):
LOAE Applic Expose Numb Metho	es: Rat, male and fema L: > 1,000 mg/kg cation Route: Oral sure time: 28 d per of exposures: 7 days od: OECD Test Guidelin rks: Subacute toxicity	s/week		
LOAE Applic Expose Numb Metho	es: Rat, male and fema L: 600 mg/kg cation Route: Oral sure time: 90 d per of exposures: 7 days od: OECD Test Guidelin irks: Subchronic toxicity	s/week ne 408		
-	ation toxicity assified based on availa	able informati	on.	
Furth	er information			
<u>Produ</u>	<u>ict:</u>			
Rema				



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ECTION	12. ECOLOGICAL INFO	ORMATION	
Ecoto	oxicity		
Com	ponents:		
penta	apotassium bis(peroxy	monosulphate) bi	is(sulphate):
Toxic	ity to fish	Exposure time	D Test Guideline 203
	ity to daphnia and other tic invertebrates	Exposure time	D Test Guideline 202
Toxic	ity to algae	Exposure time	D Test Guideline 201
		mg/l Exposure time	D Test Guideline 201
Dipot	tassium peroxodisulph	ate:	
-	ity to fish		nynchus mykiss (rainbow trout)): 76.3 mg/l e: 96 h
	ity to daphnia and other tic invertebrates	: EC50 (Daphn Exposure time	ia magna (Water flea)): 120 mg/l e: 48 h
Toxic	ity to algae	mg/l Exposure time	okirchneriella subcapitata (microalgae)): 83.7 e: 72 h :D Test Guideline 201
Ecote	oxicology Assessment		
Chror	nic aquatic toxicity	: This product I	has no known ecotoxicological effects.
dipot	assium disulphate:		
-	ity to fish	: LC50 (Pimepl Exposure time Remarks: Fre	



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	y to daphnia and other c invertebrates	:	EC50 (Daphnia n Exposure time: 4 Remarks: Fresh	
Toxicit	y to algae	:	EC50 (Pseudokir mg/l Exposure time: 9 Remarks: Fresh	
			EC10 (Pseudokir mg/l Exposure time: 9 Remarks: Fresh	
Toxicit icity)	y to fish (Chronic tox-	:	NOEC (Pimephal Exposure time: 7 Remarks: Fresh	
	y to daphnia and other c invertebrates (Chron- city)	:	NOEC (Ceriodap Exposure time: 7 Remarks: Fresh	
Persis	tence and degradabili	ity		
<u>Comp</u>	onents:			
	ootassium bis(peroxy			
Biodeg	gradability	:		ods for determining the biological degradal able to inorganic substances.
Dipota	assium peroxodisulph	ate	:	
Biodeg	gradability	:		ods for determining the biological degradal able to inorganic substances.
dipota	ssium disulphate:			
Biodeg	gradability	:		ods for determining the biological degradal able to inorganic substances.
Bioac	cumulative potential			
<u>Comp</u>	onents:			
penta	ootassium bis(peroxyr	mor	nosulphate) bis(s	ulphate):
	on coefficient: n- I/water	:	log Pow: < 0.3 Method: OECD T	est Guideline 117



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••	adverse effects				
No da	ita available				
SECTION	13. DISPOSAL CONSI	DERA	TIONS		
	A - Resource Conserva- nd Recovery Authoriza- ct		hazardous wast er, under RCRA determine at the ing the product	ts purchased form, this product would not be a te either by listing or by characteristic. Howev- A, it is the responsibility of the product user to e time of disposal, whether a material contain- or derived from the product should be classi- dous waste. (40 CFR 261.20-24)	
Disposal methods		i	Waste Oxone [™] should be dissolved, diluted, and disposed of in accordance with federal, state, and local regulations. Solutions of greater than 3% Oxone [™] will have a pH less than 2.0 and may be considered RCRA hazardous, due to the low pH.		

Domestic regulation

DOT UN/ID/NA number Proper shipping name Class Packing group Labels	:	UN 3260 Corrosive solid, acidic, inorganic, n.o.s. (MONOPERSULFATE COMPOUND) 8 II 8
Marine pollutant	:	no
International Regulations		
IATA-DGR UN/ID No. Proper shipping name Class Packing group Labels		UN 3260 Corrosive solid, acidic, inorganic, n.o.s. (MONOPERSULFATE COMPOUND) 8 II 8
Packing instruction (cargo aircraft) Packing instruction (passen-	:	863: 50.00 KG 859: 15.00 KG



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-	ircraft) ronmentally hazardous	no	
UN r Prop Class	ing group		OLID, ACIDIC, INORGANIC, N.O.S. LFATE COMPOUND)
Marii	ne pollutant	: no	
	sport in bulk accordin applicable for product as	-	RPOL 73/78 and the IBC Code

SECTION 15. REGULATORY INFORMATION

CERCLA

None

Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards	:	Acute toxicity (any route of exposure)
		Skin corrosion or irritation
		Serious eye damage or eye irritation

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.

US State Regulations

Massachusetts Right To Know		
Dipotassium peroxodisulphate	7727-21-1	>= 1 - < 5
Carbonic acid, magnesium salt (1:1)	546-93-0	>= 1 - < 5
Pennsylvania Right To Know		
pentapotassium bis(peroxymonosulphate) bis(sulphate)	70693-62-8	>= 90 - < 100
potassium hydrogen sulphate	7646-93-7	>= 3 - < 5
Dipotassium peroxodisulphate	7727-21-1	>= 1 - < 3

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive defects.

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rgizing Chemistry

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION



LANXESS' method of hazard communication is comprised of Product Labels and Safety Data Sheets. HMIS and NFPA ratings are provided by LANXESS as a customer service.

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This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of our knowledge. The information provided in this Safety Data Sheet (SDS) is correct to the best of our knowledge, information and belief at the date of its publication. We assume no legal responsibility for use of or reliance upon the information in this SDS.