according to the Hazardous Products Regulations

CAROAT®



Version	Revision Date:	SDS Number:	Date of last issue: 07/01/2021
4.3	04/29/2024	60000000017	Date of first issue: 02/16/2017

SECTION 1. IDENTIFICATION

Trade name	:	CAROAT®		
Other means of identification	:	No data available		
Manufacturer or supplier's d	eta	ils		
Company name of supplier	:	United Initiators, Inc.		
Address	:	555 Garden Street Elyria OH 44035 USA		
		United Initiators Canada Ltd. 2147 PG Pulp Mill Road Prince George, BC-V2N 2S6 CANADA		
Telephone	:	+1-440-323-3112		
Telefax	:	+1-440-323-2659		
Emergency telephone	:	CHEMTREC US (24h): CHEMTREC WORLD (24h): CANUTEC (24h):	+1-800-424-9300 +1-703-527-3887 1-613-996-6666	
For Transportation Incidents	:	TERRAPURE EMERGENCY RESPON 1-800-567-7455	ISE SERVICES (24h):	
E-mail address of person responsible for the SDS	:	cs-initiators.nafta@united-in.com		
Recommended use of the chemical and restrictions on use				
Recommended use	:	Oxidizing agents		

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations

Acute toxicity (Oral)	:	Category 4
Skin corrosion	:	Category 1B
Serious eye damage	:	Category 1
Short-term (acute) aquatic hazard	:	Category 2

according to the Hazardous Products Regulations

CAROAT[®]



ersion 3	Revision Date: 04/29/2024	SDS Number: 600000000017	Date of last issue: 07/01/2021 Date of first issue: 02/16/2017
Long- hazar		: Category 3	
	label elements d pictograms		!
Signa	I Word	: Danger	•
Hazar	d Statements	H314 Causes H401 Toxic t	Il if swallowed. s severe skin burns and eye damage. o aquatic life. Il to aquatic life with long lasting effects.
Preca	utionary Statements	P264 Wash s P270 Do not P273 Avoid r	breathe dust. skin thoroughly after handling. eat, drink or smoke when using this product. release to the environment. protective gloves/ protective clothing/ eye protection.
		CENTER/ do P301 + P330 induce vomiti P303 + P361 all contamina P304 + P340 and keep cor CENTER/ do P305 + P351 water for sev and easy to o CENTER/ do	 + P353 IF ON SKIN (or hair): Take off immediate ted clothing. Rinse skin with water. + P310 IF INHALED: Remove person to fresh ai mfortable for breathing. Immediately call a POISC ctor. + P338 + P310 IF IN EYES: Rinse cautiously wi eral minutes. Remove contact lenses, if present do. Continue rinsing. Immediately call a POISON
		Storage: P405 Store Disposal:	e locked up.
		posal plant.	

None known.

according to the Hazardous Products Regulations

CAROAT®



Version	Revision Date:	SDS Number:	Date of last issue: 07/01/2021
4.3	04/29/2024	60000000017	Date of first issue: 02/16/2017

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature	:	crystalline Solid

Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
pentapotassium bis(peroxymonosulphat e) bis(sulphate)	pentapotassium bis(peroxymono sulphate) bis(sulphate)	70693-62-8	< 100 *
Dipotassium peroxodi- sulphate	Dipotassium peroxodisul- phate	7727-21-1	< 3 *
magnesium carbonate	magnesium carbonate	546-93-0	< 2 *

* Actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice :	Take off contaminated clothing and shoes immediately. Call a physician immediately. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice. Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Do not leave the victim unattended. Symptoms of poisoning may appear several hours later.
If inhaled :	Administer oxygen if breathing is difficult or cyanosis is observed. If breathed in, move person into fresh air. If not breathing, give artificial respiration. Respiratory tract burning possible if aerosols are inhaled. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.

according to the Hazardous Products Regulations

CAROAT®



Version 4.3	Revision Date: 04/29/2024		DS Number: 00000000017	Date of last issue: 07/01/2021 Date of first issue: 02/16/2017
In ca	ase of skin contact	:	Immediate medica wounds from corr difficulty. In case of contact for at least 15 mir and shoes.	
In ca	ase of eye contact	:	tissue damage an In the case of cor of water and seek Continue rinsing e Remove contact I Protect unharmed Keep eye wide op	ntact with eyes, rinse immediately with plenty a medical advice. eyes during transport to hospital. enses. eye.
lf sw	allowed	:	Keep respiratory Do NOT induce w	oughly with water. tract clear.
	t important symptoms effects, both acute and /ed	:	Harmful if swallow Causes serious e Causes severe bu	ye damage.
Prote	ection of first-aiders	:		ers should pay attention to self-protection nmended protective clothing
Note	s to physician	:	Treat symptomati	cally and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Foam Water spray jet Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during fire fighting	:	Hazardous decomposition products may be formed under fire conditions (see section 10).
		Do not allow run-off from fire fighting to enter drains or water

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CAROAT®



Version 4.3	Revision Date: 04/29/2024		DS Number: 0000000017	Date of last issue: 07/01/2021 Date of first issue: 02/16/2017
			courses.	
Speci ods	ific extinguishing meth-	:	fire. Remove undamag so.	I water stream as it may scatter and spread led containers from fire area if it is safe to do o cool unopened containers.
Furth	er information	:	circumstances an Collect contamina must not be disch Fire residues and	measures that are appropriate to local d the surrounding environment. ted fire extinguishing water separately. This arged into drains. contaminated fire extinguishing water must accordance with local regulations.
•	ial protective equipment e-fighters	:	Wear self-containe necessary. Use personal prot	ed breathing apparatus for firefighting if ective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- tive equipment and emer- gency procedures	:	Follow safe handling advice and personal protective equipment recommendations. Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Treat recovered material as described in the section "Disposal considerations".
Environmental precautions	:	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Clear spills immediately. To clean the floor and all objects contaminated by this material, use plenty of water. Soak up with inert absorbent material. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.

SECTION 7. HANDLING AND STORAGE

Technical measures	:	See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Advice on protection against	:	Avoid dust formation.

according to the Hazardous Products Regulations





Ver 4.3	sion	Revision Date: 04/29/2024		0S Number: 0000000017	Date of last issue: 07/01/2021 Date of first issue: 02/16/2017			
	fire and explosion			Provide appropriate exhaust ventilation at places where a is formed.				
	Advice on safe handling :		:	Avoid formation of respirable particles. Do not swallow. Do not breathe vapors/dust. Avoid contact with skin and eyes. Provide sufficient air exchange and/or exhaust in work rooms. Smoking, eating and drinking should be prohibited in the application area. Wash thoroughly after handling. For personal protection see section 8.				
	Conditions for safe storage		:	Keep in a dry place. Observe label precautions. Store in accordance with the particular national regulations. Electrical installations / working materials must comply with the technological safety standards. Containers which are opened must be carefully resealed ar kept upright to prevent leakage.				
	Materia	ls to avoid	:	: Never allow product to get in contact with water during storage.				
	Recom perature	mended storage tem- e	:	: < 30 °C				
	Further age sta	information on stor- bility	:	: For quality reasons				
				No decomposition	if stored normally.			

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	CA AB OEL
		TWA	0.1 mg/m3 (Persulphate)	CA BC OEL
		TWA	0.1 mg/m3 (Persulphate)	ACGIH
magnesium carbonate	546-93-0	TWA (Total dust)	10 mg/m3	CA BC OEL
		TWA (respir-	3 mg/m3	CA BC OEL

according to the Hazardous Products Regulations



CAROAT®

sion	Revision Date: 04/29/2024		OS Number: 0000000017		t issue: 07/01/202 t issue: 02/16/201	
				able dust fraction)		
				TWAEV (to- tal dust)	10 mg/m3	CA QC O
Engine	ering measures	:	Minimize work	place exposure	concentrations.	
Person	al protective equip	oment	:			
Respira	tory protection	:	In the case of approved filter		formation use resp	pirator with an
Filte	r type	:	Filter type P			
			Use NIOSH a	pproved respirat	ory protection.	
Mate Brea	rotection erial ak through time e thickness	:	Nitrile rubber 480 min 0.40 mm			
	erial ak through time e thickness	: : :	butyl-rubber 480 min 0.47 mm			
Rem	narks	:	standard value material has to protective glov chemicals dep hazardous su For special a resistance to o gloves with th	es! The exact brood be obtained froot ve. Choose glow bending on the c bstance and spe pplications, we re chemicals of the	time/strength of n eak through time/s om the producer of es to protect hand oncentration and cific to place of we ecommend clarify aforementioned p turer. Wash hand day.	strength of f the s against quantity of the ork. ing the protective
Eye pro	tection	:	to the worksta Please follow selecting prote Always wear eye contact w Tightly fitting s Please wear s	tion location. all applicable loc ective measures eye protection w ith the product c safety goggles	and safety showe cal/national require for a specific wor hen the potential f annot be excluded e goggles. Also w nazard.	ements when kplace. for inadvertent d.
Skin an	d body protection	:			clothing based on sment of the local	

according to the Hazardous Products Regulations





Version 4.3	Revision Date: 04/29/2024	SDS Number: 600000000017	Date of last issue: 07/01/2021 Date of first issue: 02/16/2017		
		disposable suit Wear as appro	formed (e.g., sleevelets, apron, gauntlets, ts) to avoid exposed skin surfaces. priate: nt antistatic protective clothing.		
Protective measures		to the concentr	: The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.		
Hygie	Hygiene measures :		Avoid contact with skin, eyes and clothing. Keep away from food and drink. When using do not eat or drink. When using do not smoke. Wash hands before breaks and immediately after handling the product.		

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	solid
Color	:	white
Odor	:	odorless
Odor Threshold	:	not determined
рН	:	2.3 Concentration: 10 g/l
Melting point/range	:	Decomposition: Decomposes below the melting point.
Boiling point/boiling range	:	not determined
Flash point	:	Not applicable
Evaporation rate	:	No data available
Flammability (solid, gas)	:	does not ignite
Self-ignition	:	The substance or mixture is not classified as pyrophoric.
Upper explosion limit / Upper	:	Upper explosion limit

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CAROAT®



Version 4.3	Revision Date: 04/29/2024	-	S Number: 000000017	Date of last issue: 07/01/2021 Date of first issue: 02/16/2017		
flamm	nability limit		No data available			
	r explosion limit / Lower nability limit	:	Lower explosion No data available			
Vapor	rpressure	:	< 0.001 hPa (25	°C)		
Relati	ve vapor density	:	not determined			
Relati	ve density	:	not determined			
Densi	ty	:	ca. 2.35 g/cm3 (2	20 °C)		
Bulk o	density	:	ca. 1,100 kg/m3			
	ility(ies) ater solubility	:	ca. 300 g/l solubl	e (20 °C)		
	ion coefficient: n- ol/water	:	Not applicable			
Autoi	gnition temperature	:	not determined			
	Accelerating decomposi- emperature (SADT)	:	 > 80 °C Method: UN-Test H.4 SADT-Self Accelerating Decomposition Temperature. Lot temperature at which the tested package size will undergo self-accelerating decomposition reaction. 			
Visco Vis	sity scosity, dynamic	:	Not applicable			
Vis	scosity, kinematic	:	Not applicable			
Explo	sive properties	:	Not explosive			
Oxidiz	zing properties	:	No oxidising effect	ct.		
Self-h	eating substances	:	The substance or mixture is not classified as self heating.			
Partic	le size	:	not determined			
Partic	le Size Distribution	:		on: volume distribution chnique: laser diffraction		

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Version	Revision Date:	SDS Number:	Date of last issue: 07/01/2021
4.3	04/29/2024	60000000017	Date of first issue: 02/16/2017

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions.	
Chemical stability	:	Stable under recommended storage conditions. No decomposition if stored normally.	
Possibility of hazardous reac- tions	:	Even small amounts of moisture or impurities can notical reduce the self-accelerating decomposition temperature (SADT). Avoid moisture.	
Conditions to avoid	:	Protect from contamination. Protect from moisture.	
Incompatible materials	:	Accelerators, strong acids and bases, heavy metals and heavy metal salts, reducing agents Avoid impurities (e.g. rust, dust, ash), risk of decompositio	
		Not applicable	
Hazardous decomposition products	:	Irritant, caustic, flammable, noxious/toxic gases and vapours can develop in the case of fire and decomposition	

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity Harmful if swallowed.	
Product:	
Acute oral toxicity	: LD50 (Rat): 500 mg/kg Method: OECD Test Guideline 423
Acute inhalation toxicity	 LC0 (Rat): > 5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhala- tion toxicity Remarks: Expert judgment
Acute dermal toxicity	: LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 402

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

Acute oral toxicity	:	LD50 (Rat): 500 mg/kg
		Method: OECD Test Guideline 423

according to the Hazardous Products Regulations





Version 4.3	Revision Date: 04/29/2024	-	S Number: 000000017	Date of last issue: 07/01/2021 Date of first issue: 02/16/2017			
Acı	Acute inhalation toxicity		 LC0 (Rat): > 5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute tion toxicity Remarks: Expert judgment 				
Acu	ute dermal toxicity	:	LD50 (Rat): > 5,0 Method: OECD To	00 mg/kg est Guideline 402			
Dip	ootassium peroxodisulp	hate:					
Acu	ute oral toxicity	:	LD50 (Rat, male): Method: OECD To Assessment: The single ingestion.				
Acı	Acute inhalation toxicity		LC50 (Rat): > 5.1 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute in tion toxicity Remarks: Expert judgment				
Acu	ute dermal toxicity	:	LD50 (Rat): > 2,0 Assessment: The toxicity Remarks: Expert	substance or mixture has no acute dermal			
ma	gnesium carbonate:						
Acı	ute oral toxicity	:	icity				
Ski	in corrosion/irritation						
Ca	uses severe burns.						
Spe Me	oduct: ecies thod	:	Rabbit OECD Test Guide	eline 404			
	sult	•	Causes burns.	and destruction to the			
Ker	marks	:	Extremely corrosi	ve and destructive to tissue.			

according to the Hazardous Products Regulations

CAROAT®



Version	Revision Date:	SDS Number:	Date of last issue: 07/01/2021
4.3	04/29/2024	60000000017	Date of first issue: 02/16/2017

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

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

Dipotassium peroxodisulphate:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Skin irritation

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Species Result Method		Rabbit Risk of serious damage to eyes. OECD Test Guideline 405
Remarks	:	May cause irreversible eye damage.

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

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

Dipotassium peroxodisulphate:

Species	:	Rabbit
Result	:	Eye irritation
Method	:	OECD Test Guideline 405

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Product:

Species :	Skin contact Guinea pig OECD Test Guideline 406
Result :	Did not cause sensitization on laboratory animals.

: Inhalation

Routes of exposure

according to the Hazardous Products Regulations



CAROAT®

Version 4.3	Revision Date: 04/29/2024	SDS Number: 60000000017	Date of last issue: 07/01/2021 Date of first issue: 02/16/2017				
Methoo Result	1	: Expert judgment : Does not cause	respiratory sensitization.				
Remar	ks	: Expert judgment					
Test Ty Specie Methoo	S	: Mouse	Local lymph node assay (LLNA) Mouse OECD Test Guideline 442B				
Result GLP		: yes	skin sensitization.				
Remar		-	n is based on tests on the mixture itself.				
Assess	smeni	: Did not cause so	ensitization on laboratory animals.				
	onents:						
	potassium bis(peroxy		sulphate):				
	of exposure	: Skin contact					
Specie		: Guinea pig	L				
Method	1	: OECD Test Gui					
Result		: Did not cause se	ensitization on laboratory animals.				
Test Ty		: Local lymph noc	le assay (LLNA)				
Specie		: Mouse	deline 110D				
Methoo Result	1	: OECD Test Gui					
Result		. Did not cause s	ensitization on laboratory animals.				
Dipota	ssium peroxodisulp	nate:					
Routes	of exposure	: Skin contact					
Specie	S	: Guinea pig					
Method	Ł	: OECD Test Gui	deline 406				
Result		: May cause sens	itization by skin contact.				
Routes	of exposure	: inhalation (dust/					
Result			sitization by inhalation.				
Remar	ks	: Expert judgment					
Germ	cell mutagenicity						
Not cla	ssified based on availa	able information.					
Produ	ct:						
Genoto	oxicity in vitro	: Method: OECD Result: positive	Test Guideline 473				
		Method: OECD Result: positive	Test Guideline 476				
		Method: OECD Result: negative	Test Guideline 471				
Genoto	oxicity in vivo	: Test Type: In viv	o micronucleus test				
		13 / 23					

according to the Hazardous Products Regulations





Version 4.3	Revision Date: 04/29/2024		9S Number: 0000000017	Date of last issue: 07/01/2021 Date of first issue: 02/16/2017	
			Species: Mouse (Application Route: Method: OECD Te Result: negative	Oral	
			Test Type: In vivo mammalian alkaline comet assay Species: Rat (male) Application Route: Oral Method: OECD Test Guideline 489 Result: negative		
Com	ponents:				
penta	apotassium bis(peroxy	ymon	osulphate) bis(su	Iphate):	
Geno	toxicity in vitro	:	Test Type: Ames Metabolic activatio Method: OECD Te Result: negative	on: with and without metabolic activation	
			Test Type: In vitro Method: OECD Te Result: Equivocal	mammalian cell gene mutation test est Guideline 476	
			Test Type: Chrom Method: OECD Te Result: positive	osome aberration test in vitro est Guideline 473	
			Test Type: In vitro Method: OECD Te Result: negative	mammalian cell gene mutation test est Guideline 490	
Geno	toxicity in vivo	:	Test Type: In vivo Species: Mouse (i Application Route: Method: OECD Te Result: negative	Oral	
			Test Type: In vivo Species: Rat (mal Application Route: Method: OECD Te Result: negative	Oral	
Dipo	tassium peroxodisulp	hate	:		
Geno	toxicity in vitro	:	Result: negative	ial reverse mutation assay (AMES) on data from similar materials	
Geno	toxicity in vivo	:	Test Type: Mamm cytogenetic assay	alian erythrocyte micronucleus test (in vivo)	

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Species: Mouse Application Route: Intraperitoneal injection Result: negative Remarks: Based on data from similar materials Carcinogenicity Not classified based on available information. Product: Remarks Remarks Remarks Terducti Remarks Terduption Remarks Terduption Remarks Remarks Terduption Species This information is not available. Dipotassium peroxodisulphate: Species Species Method Method: Dipotassium peroxodisulphate: Method: Method: Method: Method: Method: Method: Method:	ersion 3	Revision Date: 04/29/2024	SDS Number: 600000000017	Date of last issue: 07/01/2021 Date of first issue: 02/16/2017
Not classified based on available information. Product: Remarks : This information is not available. Components: pentapotassium bis(peroxymonosulphate) bis(sulphate): Remarks : This information is not available. Dipotassium peroxodisulphate: Species : Species : Method :: OECD Test Guideline 451 Result : Reproductive toxicity Not classified based on available information. Product: Components: pentapotassium bis(peroxymonosulphate) bis(sulphate): Dipotassium peroxodisulphate: Effects on fertility : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative StoT-single exposure Not classified based on available information. Product: StoT-single exp			Application Rou Result: negative	ite: Intraperitoneal injection
Remarks : This information is not available. Components: pentapotassium bis(peroxymonosulphate) bis(sulphate): Remarks : This information is not available. Dipotassium peroxodisulphate: Species Species : Mouse Application Route : Skin contact Exposure time :: 52 weeks Method :: OECD Test Guideline 451 Result : negative Reproductive toxicity Not classified based on available information. Product: Components: pentapotassium bis(peroxymonosulphate) bis(sulphate): Dipotassium peroxodisulphate: Effects on fertility : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421			able information.	
Remarks : This information is not available. Components: pentapotassium bis(peroxymonosulphate) bis(sulphate): Remarks : This information is not available. Dipotassium peroxodisulphate: Species Species : Mouse Application Route : Skin contact Exposure time :: 52 weeks Method :: OECD Test Guideline 451 Result : negative Reproductive toxicity Not classified based on available information. Product: Components: pentapotassium bis(peroxymonosulphate) bis(sulphate): Dipotassium peroxodisulphate: Effects on fertility : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421	Produ	uct:		
pentapotassium bis(peroxymonosulphate) bis(sulphate): Remarks : This information is not available. Dipotassium peroxodisulphate: Species : Mouse Application Route : Skin contact Exposure time : S2 weeks Method :: OECD Test Guideline 451 Result : negative Reproductive toxicity Not classified based on available information. Product: Components: pentapotassium bis(peroxymonosulphate) bis(sulphate): Dipotassium peroxodisulphate: Effects on fertility : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative STOT-single exposure : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative STOT-single exposure : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative STOT-single exposure : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Stot-single exposure : Not classified based on available information. Product: : The substance or mixture is not classified as specif			: This information	is not available.
Remarks : This information is not available. Dipotassium peroxodisulphate: Species : Mouse Application Route : Skin contact Exposure time : S2 weeks Method : OECD Test Guideline 451 Result : negative Reproductive toxicity Not classified based on available information. Product: Components: pentapotassium bis(peroxymonosulphate) bis(sulphate): Dipotassium peroxodisulphate: Effects on fertility : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative STOT-single exposure Not classified based on available information. Product: Stot-single exposure Not classified based on available information. Effects Product: Stot-single exposure Not classified based on available information. Product: Assessment : The substance or mixture is not classified as specific targ	<u>Comp</u>	oonents:		
Dipotassium peroxodisulphate: Species : Mouse Application Route : Skin contact Exposure time : S2 weeks Method : OECD Test Guideline 451 Result : negative Reproductive toxicity Not classified based on available information. Product: Components: pentapotassium bis(peroxymonosulphate) bis(sulphate): Dipotassium peroxodisulphate: Effects on fertility : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative : Stot: OECD Test Guideline 421 Result: negative : Stot: OECD Test Guideline 421 Result: negative : Stot: OECD Test Guideline 421 Result: negative : The substance or mixture is not classified as specific targ	penta	apotassium bis(peroxy	monosulphate) bis	(sulphate):
Species : Mouse Application Route : Skin contact Exposure time : 52 weeks Method : OECD Test Guideline 451 Result : negative Reproductive toxicity Not classified based on available information. Product: Components: pentapotassium bis(peroxymonosulphate) bis(sulphate): Dipotassium peroxodisulphate: Effects on fertility : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative STOT-single exposure Not classified based on available information. Product: Stot-single exposure Not classified based on available information. Product: Assessment : The substance or mixture is not classified as specific targ	Rema	ırks	: This information	is not available.
Application Route : Skin contact Exposure time : 52 weeks Method : OECD Test Guideline 451 Result : negative Reproductive toxicity Not classified based on available information. Product: Components: pentapotassium bis(peroxymonosulphate) bis(sulphate): Dipotassium peroxodisulphate: Effects on fertility : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative STOT-single exposure Not classified based on available information. Product: Assessment : The substance or mixture is not classified as specific targ	Dipot	assium peroxodisulpl	nate:	
Exposure time : 52 weeks Method : OECD Test Guideline 451 Result : negative Reproductive toxicity Not classified based on available information. Product: Components: pentapotassium bis(peroxymonosulphate) bis(sulphate): Dipotassium peroxodisulphate: Effects on fertility : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative STOT-single exposure Not classified based on available information. Product: Assessment : The substance or mixture is not classified as specific targ	Speci	es		
Method : OECD Test Guideline 451 Result : negative Reproductive toxicity Not classified based on available information. Product: Components: pentapotassium bis(peroxymonosulphate) bis(sulphate): Dipotassium peroxodisulphate: Effects on fertility : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative STOT-single exposure Not classified based on available information. Product: Assessment :				
Result : negative Reproductive toxicity Not classified based on available information. Product: Components: pentapotassium bis(peroxymonosulphate) bis(sulphate): Dipotassium peroxodisulphate: Effects on fertility : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative STOT-single exposure Method: OECD Test Guideline 421 Result: negative STOT-single exposure Mot classified based on available information. Product: The substance or mixture is not classified as specific targ				
Not classified based on available information. Product: Components: pentapotassium bis(peroxymonosulphate) bis(sulphate): Dipotassium peroxodisulphate: Effects on fertility : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative STOT-single exposure Not classified based on available information. Product: Assessment : The substance or mixture is not classified as specific targ				Ideline 451
Product: Components: pentapotassium bis(peroxymonosulphate) bis(sulphate): Dipotassium peroxodisulphate: Effects on fertility : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Stot-single exposure Not classified based on available information. Product: Assessment :	Repro	oductive toxicity		
Components: pentapotassium bis(peroxymonosulphate) bis(sulphate): Dipotassium peroxodisulphate: Effects on fertility : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative STOT-single exposure Not classified based on available information. Product: Assessment : The substance or mixture is not classified as specific targ	Not cl	lassified based on availa	able information.	
pentapotassium bis(peroxymonosulphate) bis(sulphate): Dipotassium peroxodisulphate: Effects on fertility : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Stot-single exposure Not classified based on available information. Product: Assessment :	<u>Produ</u>	uct:		
Dipotassium peroxodisulphate: Effects on fertility : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative STOT-single exposure Not classified based on available information. Product: Information. Product: Assessment : The substance or mixture is not classified as specific targ	<u>Comp</u>	<u>oonents:</u>		
Effects on fertility : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative STOT-single exposure Not classified based on available information. Not classified based on available information. Product: Assessment : The substance or mixture is not classified as specific targ	penta	apotassium bis(peroxy	monosulphate) bis	(sulphate):
Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative Effects on fetal development : Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative STOT-single exposure Not classified based on available information. Product: Assessment Assessment	Dipot	assium peroxodisulph	nate:	
Application Route: Ingestion Method: OECD Test Guideline 421 Result: negative STOT-single exposure Not classified based on available information. <u>Product:</u> Assessment : The substance or mixture is not classified as specific targ	Effect	s on fertility	Application Rou Method: OECD	Test Guideline 421
Not classified based on available information. Product: Assessment : The substance or mixture is not classified as specific targ	Effect	s on fetal development	Application Rou Method: OECD	Test Guideline 421
Product: Assessment : The substance or mixture is not classified as specific targ	STOT	-single exposure		
Assessment : The substance or mixture is not classified as specific targ			able information.	
	Asses	ssment		

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CAROAT®



Version	Revision Date:	5
4.3	04/29/2024	6

SDS Number: 60000000017

Date of last issue: 07/01/2021 Date of first issue: 02/16/2017

Components:

Dipotassium peroxodisulphate:

Assessment : May cause respiratory irritation.

STOT-repeated exposure

Not classified based on available information.

Repeated dose toxicity

Product:

Species LOAEL Application Route Exposure time Method Remarks		Rat, male and female > 1,000 mg/kg Oral 28 d OECD Test Guideline 407 Subacute toxicity
Species LOAEL Application Route Exposure time Method		Rat, male and female 600 mg/kg Oral 90 d OECD Test Guideline 408
Remarks	:	Subchronic toxicity

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

Species LOAEL Application Route Exposure time Method Remarks	 Rat, male and female > 1,000 mg/kg Oral 28 d OECD Test Guideline 407 Subacute toxicity
Species LOAEL Application Route Exposure time Method Remarks	 Rat, male and female 600 mg/kg Oral 90 d OECD Test Guideline 408 Subchronic toxicity

Dipotassium peroxodisulphate:

Species	:	Rat
NOAEL	:	1,000 mg/kg
LOAEL	:	3,000 mg/kg
Application Route	:	Ingestion
Exposure time	:	90 d
Method	:	OECD Test Guideline 408

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CAROAT®



Version	Revision Date:	SDS Number:	Date of last issue: 07/01/2021
4.3	04/29/2024	60000000017	Date of first issue: 02/16/2017

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks

: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:		
Toxicity to fish	:	NOEC (Oncorhynchus mykiss (rainbow trout)): 0.5 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 3.5 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): > 1 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to fish (Chronic tox- icity)	:	NOEC: 0.5 mg/l Exposure time: 37 d
Toxicity to microorganisms	:	EC50 (Bacteria): 100 mg/l Exposure time: 3 h Method: OECD Test Guideline 209
Ecotoxicology Assessment		
Chronic aquatic toxicity	:	Harmful to aquatic life with long lasting effects.
Components:		
pentapotassium bis(peroxyr	noi	nosulphate) bis(sulphate):
Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 53 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 3.5 mg/l Exposure time: 48 h Method: OECD Test Guideline 202

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rsion B	Revision Date: 04/29/2024		05 Number: 0000000017	Date of last issue: 07/01/2021 Date of first issue: 02/16/2017
Toxici plants	ity to algae/aquatic S	:	mg/l Exposure time: 7	chneriella subcapitata (green algae)): > 1 2 h ⁻ est Guideline 201
			mg/l Exposure time: 7	rchneriella subcapitata (green algae)): 0.5 2 h Test Guideline 201
Ecoto	oxicology Assessment			
	aquatic toxicity	:	Toxic to aquatic I	ife.
Chron	nic aquatic toxicity	:	Harmful to aquati	c life with long lasting effects.
Dipot	assium peroxodisulph	ate	:	
Toxici	ity to fish	:	Exposure time: 9 Method: OECD T	mus maximus (turbot)): 107.6 mg/l 6 h ēst Guideline 203 on data from similar materials
	ity to daphnia and other ic invertebrates	:	Exposure time: 4	nagna (Water flea)): 120 mg/l 8 h on data from similar materials
Toxici plants	ity to algae/aquatic	:		
Toxici	ity to microorganisms	:	Exposure time: 1	onas putida): 36 mg/l 8 h on data from similar materials
Persi	stence and degradabil	ity		
<u>Produ</u>	uct:			
Biode	gradability	:		ethods for determining the biological degra-

Components:

pentapotassium bis(peroxymonosulphate) bis(sulphate):

dability are not applicable to inorganic substances.

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ersion .3	Revision Date: 04/29/2024		0S Number: 0000000017	Date of last issue: 07/01/2021 Date of first issue: 02/16/2017
Biode	gradability	:		methods for determining the biological degra- t applicable to inorganic substances.
Dipot	assium peroxodisulp	hate	:	
Biode	gradability	:		methods for determining biodegradability are to inorganic substances.
Bioad	cumulative potentia	l		
<u>Com</u>	oonents:			
Dipot	assium peroxodisulp	hate	:	
	ion coefficient: n- ol/water	:	Remarks: Not	applicable
Mobi	lity in soil			
No da	ata available			
Other	adverse effects			
Produ	uct:			
Additi matio	onal ecological infor- n	:	unprofessional Toxic to aquat	tal hazard cannot be excluded in the event of handling or disposal. c life. atic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods Waste from residues	 Dispose of wastes in an approved waste disposal facility. The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. 	
Contaminated packaging	 Dispose of in accordance with local regulations. Clean container with water. Dispose of contents/ container to an approved waste disposal plant. Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. 	I

SECTION 14. TRANSPORT INFORMATION

International Regulations

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CAROAT®



Version	Revision Date:	SDS Number:	Date of last issue: 07/01/2021
4.3	04/29/2024	60000000017	Date of first issue: 02/16/2017

UNRTDG

UN number Proper shipping name	:	UN 3260 CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.
Class		(Potassium Monopersulfate)
Class	-	8 II
Packing group Labels	:	8
	:	-
Environmentally hazardous	•	no
IATA-DGR		
UN/ID No.	:	UN 3260
Proper shipping name	:	Corrosive solid, acidic, inorganic, n.o.s. (Potassium Monopersulfate)
Class	:	8
Packing group	:	1
Labels	:	Corrosive
Packing instruction (cargo aircraft)	:	863
Packing instruction (passen- ger aircraft)	:	859
- /		
IMDG-Code		
UN number	÷	UN 3260
Proper shipping name	:	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. (Potassium Monopersulfate)
Class	:	8
Packing group	:	ll
Labels	:	8
EmS Code	:	F-A, S-B
Marine pollutant	:	no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation

:	UN 3260
:	CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.
	(Potassium Monopersulfate)
:	8
:	II
:	8
:	154
:	no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

according to the Hazardous Products Regulations

CAROAT[®]



Version	Revision Date:	SDS Number:	Date of last issue: 07/01/2021
4.3	04/29/2024	60000000017	Date of first issue: 02/16/2017

SECTION 15. REGULATORY INFORMATION

•	luct	are reported in the following inventories:
TCSI (TW)	•	On the inventory, or in compliance with the inventory
TSCA (US)	:	All substances listed as active on the TSCA inventory
AIIC (AU)	:	On the inventory, or in compliance with the inventory
DSL (CA)	:	All components of this product are on the Canadian DSL
ENCS (JP)	:	On the inventory, or in compliance with the inventory
ISHL (JP)	:	On the inventory, or in compliance with the inventory
KECI (KR)	:	On the inventory, or in compliance with the inventory
PICCS (PH)	:	On the inventory, or in compliance with the inventory
IECSC (CN)	:	On the inventory, or in compliance with the inventory
TECI (TH)	:	On the inventory, or in compliance with the inventory

Canadian lists

No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

Further information

This material safety datasheet only contains information relating to safety and does not replace any product information or product specification. These safety instructions also apply to empty packaging which may still contain product residues.

The hazards on the label also apply to residues in the container.

Sources of key data used to compile the Material Safety Data Sheet	:	Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agen- cy, http://echa.europa.eu/
Revision Date Date format	:	04/29/2024 mm/dd/yyyy

mm/dd/yyyy

according to the Hazardous Products Regulations





Version	Revision Date:	SDS Number:	Date of last issue: 07/01/2021
4.3	04/29/2024	60000000017	Date of first issue: 02/16/2017

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
CA AB OEL	:	Canada. Alberta, Occupational Health and Safety Code (table
		2: OEL)
CA BC OEL	:	Canada. British Columbia OEL
CA QC OEL	:	Québec. Regulation respecting occupational health and safe-
		ty, Schedule 1, Part 1: Permissible exposure values for air-
		borne contaminants
ACGIH / TWA	:	8-hour, time-weighted average
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA QC OEL / TWAEV	:	Time-weighted average exposure value

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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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