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					Print Date 03/17/2022			
SEC	SECTION 1. IDENTIFICATION							
I	Product name		:	EPOCAST® 161	8 B US			
I	Manufacturer or supplier's details							
	Compa Addres	ny name of supplier s		Huntsman Advar P.O. Box 4980 The Woodlands, TX 77387 United States of				
-	Teleph	one	:	Non-Emergency				
		address of person sible for the SDS	:	Global_Product_	EHS_AdMat@huntsman.com			
I	Emerg	ency telephone number	r :	Chemtrec: (800)	424-9300 or (703) 527-3887			
I	Recom	mended use of the cl	hem	ical and restriction	ons on use			
I	Recom	mended use	:	Hardener				

SECTION 2. HAZARDS IDENTIFICATION

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

Acute toxicity (Oral)	: Category 4
Acute toxicity (Inhalation)	: Category 2
Acute toxicity (Dermal)	: Category 3
Skin corrosion	: Category 1B
Serious eye damage	: Category 1
Skin sensitisation	: Category 1
Reproductive toxicity	: Category 1B
Specific target organ toxicity - single exposure	: Category 3 (Respiratory system)
Specific target organ toxicity - repeated exposure (Oral)	: Category 2 (Liver, Kidney, Skeletal muscle, Heart)
Short-term (acute) aquatic hazard	: Category 2
Chronic aquatic toxicity	: Category 2

GHS label elements



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Hazard pictogr	ams		Print Date 03/17/202	<u>?</u> 2
Signal word		: Danger		
Hazard statem	ents	H314 Causes H317 May ca H330 Fatal if H335 May ca H360F May d H373 May ca muscle, Hear swallowed.	n contact with skin. s severe skin burns and eye damage. ause an allergic skin reaction.	
Precautionary	Precautionary statements		 special instructions before use. handle until all safety precautions have been reacod. breathe mist or vapours. skin thoroughly after handling. eat, drink or smoke when using this product. uly outdoors or in a well-ventilated area. ninated work clothing must not be allowed out of e. elease to the environment. protective gloves/ protective clothing/ eye protection. e + P330 IF SWALLOWED: Call a POISON bctor if you feel unwell. Rinse mouth. e + P331 IF SWALLOWED: Rinse mouth. Do NOT ing. + P353 IF ON SKIN (or hair): Take off immediate ated clothing. Rinse skin with water/ shower. e + P310 IF INHALED: Remove person to fresh ai mfortable for breathing. Immediately call a POISON octor. e + P338 + P310 IF IN EYES: Rinse cautiously wite eral minutes. Remove contact lenses, if present do. Continue rinsing. Immediately call a POISON octor. e IF exposed or concerned: Get medical advice/ e If skin irritation or rash occurs: Get medical advice/ f Store in a well-ventilated place. Keep container l. 	on/ T ely ir DN th



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Other None k	hazards mown.	•	Print Date 03/17/2022 ed up. f contents/container to an approved facility in local, regional, national and international

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Diethylenetriamine	111-40-0	30 - 50
4,4'-isopropylidenediphenol	80-05-7	30 - 50
2,2'-dimethyl-4,4'- methylenebis(cyclohexylamine)	6864-37-5	10 - 20
2-aminoethanol	141-43-5	5 - 10

The specific chemical identity and/or exact percentage (concentration) of composition may be withheld as a trade secret.

SECTION 4. FIRST AID MEASURES

General advice	:	Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance. Symptoms of poisoning may appear several hours later. Treat symptomatically. Get medical attention if symptoms occur.
If inhaled	:	Call a physician or poison control centre immediately. If inhaled, remove to fresh air. Get medical attention if symptoms occur.
In case of skin contact	:	Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. Take victim immediately to hospital. If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	:	Small amounts splashed into eyes can cause irreversible tissue damage and blindness.

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			of water and seek Continue rinsing e Remove contact I Keep eye wide op	eyes during transport to hospital. enses.
lf swa	If swallowed		If symptoms pers	
	important symptoms effects, both acute and red	:	None known.	
Prote	ction of first-aiders		and use the record If potential for exp personal protective Avoid inhalation, No action shall be suitable training.	ngestion and contact with skin and eyes. e taken involving any personal risk or without ous to the person providing aid to give
Notes	s to physician	:	Treat symptomati	cally.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	Exercise caution when using a high volume water jet as it may scatter and spread fire
Specific hazards during firefighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Carbon dioxide (CO2) Carbon monoxide Nitrogen oxides (NOx) Carbon oxides
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must

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			be disposed of in	Print Date 03/17/2022 accordance with local regulations.
	pecial protective equipment or firefighters	:	Wear self-contain necessary.	ned breathing apparatus for firefighting if

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Refer to protective measures listed in sections 7 and 8.
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	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Advice on safe handling	:	Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitisation of susceptible persons. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. Avoid formation of aerosol. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. To avoid spills during handling keep bottle on a metal tray. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	:	Prevent unauthorized access. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Keep in properly labelled containers.
Materials to avoid	:	For incompatible materials please refer to Section 10 of this



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		SDS.		Print Date 03/17/2022
	mmended storage erature	: 36 - 104	°F / 2 - 40 °C	
	er information on ge stability	: Stable ur	der normal conditions.	

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Diethylenetriamine	111-40-0	TWA	1 ppm	ACGIH
		TWA	1 ppm 4 mg/m3	NIOSH REL
		TWA	1 ppm 4 mg/m3	OSHA P0
2-aminoethanol	141-43-5	TWA	3 ppm	ACGIH
		STEL	6 ppm	ACGIH
		TWA	3 ppm 6 mg/m3	OSHA Z-1
		TWA	3 ppm 8 mg/m3	NIOSH REL
		ST	6 ppm 15 mg/m3	NIOSH REL
		STEL	6 ppm 15 mg/m3	OSHA P0
		TWA	3 ppm 8 mg/m3	OSHA P0

Personal protective equipment

Respiratory protection	-	General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
Respiratory protection		In the case of vapour formation use a respirator with an approved filter.
Hand protection Material	:	butyl-rubber

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Break through time		: >8h	Print Date 03/17/2022			
Material Material Break through time		: Solvent-resist : Nitrile rubber : 10 - 480 min				
Remarks		approved star chemical proc necessary. The suitability	 Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. The suitability for a specific workplace should be discussed with the producers of the protective gloves. 			
Eye protection		Tightly fitting	tle with pure water safety goggles ield and protective suit for abnormal processing			
Skin a	and body protection	n : Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work pl				
Hygiene measures		When using d When using d	 Avoid contact with skin, eyes and clothing. 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	:	liquid
Colour	:	amber
Odour	:	amine-like
Odour Threshold	:	No data is available on the product itself.
рН	:	No data is available on the product itself.
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	> 212 °F / > 100 °C Method: Pensky-Martens closed cup
Evaporation rate	:	No data is available on the product itself.
Flammability (solid, gas)	:	No data is available on the product itself.
Flammability (liquids)	:	No data is available on the product itself.



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Upper explosion limit / Uppe flammability limit	Print Date 03/17/2022 r : No data is available on the product itself.		
Lower explosion limit / Lowe flammability limit	r : No data is available on the product itself.		
Vapour pressure	: No data is available on the product itself.		
Relative vapour density	: No data is available on the product itself.		
Relative density	: 1		
Density	: 1 g/cm3 (77 °F / 25 °C)		
Solubility(ies) Water solubility	: partly soluble (68 °F / 20 °C)		
Solubility in other solvents	: No data is available on the product itself.		
Partition coefficient: n-	: No data is available on the product itself.		
octanol/water Auto-ignition temperature	: No data is available on the product itself.		
Decomposition temperature	: > 392 °F / > 200 °C		
Self-Accelerating decomposition temperature (SADT)	: No data is available on the product itself.		
Viscosity Viscosity, dynamic	: 400 mPa.s (77 °F / 25 °C)		
Explosive properties	: No data is available on the product itself.		
Oxidizing properties	: No data is available on the product itself.		
Molecular weight	: No data available		
Particle size	: No data is available on the product itself.		

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No hazards to be specially mentioned.
Conditions to avoid	:	None known.
Incompatible materials	:	None known.



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produ	rdous decomposition	 No decomposit carbon monoxi carbon dioxide Nitrogen oxide 	

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity	
Product:	
Acute oral toxicity :	Acute toxicity estimate: 1,409 mg/kg Method: Calculation method
Acute inhalation toxicity :	Acute toxicity estimate: 0.3705 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
	Assessment: The substance/mixture is not toxic on inhalation as defined by dangerous goods regulations.
Acute dermal toxicity :	Acute toxicity estimate: 898.66 mg/kg Method: Calculation method
Components:	
Diethylenetriamine:	
Acute oral toxicity :	LD50 (Rat, male): 1,620 mg/kg
Acute inhalation toxicity :	LC50 (Rat, male and female): 0.185 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403
Acute dermal toxicity :	LD50 (Rabbit): 1,045 mg/kg
4,4'-isopropylidenediphenol:	
Acute oral toxicity :	LD50 (Rat, male and female): > 2,000 - < 5,000 mg/kg Method: OECD Test Guideline 401 Assessment: The substance or mixture has no acute oral toxicity
Acute inhalation toxicity :	LC50 (Rat, male and female): > 170 mg/m3 Exposure time: 6 h Test atmosphere: dust/mist
Acute dermal toxicity :	LD50 (Rabbit, male): ca. 6,400 mg/kg
2,2'-dimethyl-4,4'-methylenebis	s(cyclohexylamine):
	LD50 (Rat, male and female): 320 - 460 mg/kg Method: OECD Test Guideline 401 GLP: no

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rsion	Revision Date: 01/25/2022	SDS Number: 400001007909	Date of last issue: 08/18/2017 Date of first issue: 04/01/2016		
		Assessment: - single ingestio	Print Date 03/17/202 The component/mixture is moderately toxic after on.		
Acute	inhalation toxicity	Exposure time Test atmosphe Method: OEC	ere: dust/mist D Test Guideline 403 The component/mixture is highly toxic after short		
Acute	dermal toxicity	Method: OECI GLP: no	male and female): 200 - 400 mg/kg D Test Guideline 402 The component/mixture is toxic after single kin.		
2-ami	noethanol:				
	oral toxicity		ale and female): 1,089 mg/kg D Test Guideline 401		
Acute	inhalation toxicity	Exposure time Test atmosphe	ere: vapour The component/mixture is moderately toxic after		
Acute	dermal toxicity	Method: OECI	male and female): 2,504 mg/kg D Test Guideline 402 The component/mixture is moderately toxic after with skin.		
Skin o	corrosion/irritation				
Comp	oonents:				
Dieth	ylenetriamine:				
Speci		: Rabbit			
Asses Resul	sment t	: Causes burns : Causes burns			
4,4'-is	opropylidenediphen	ol:			
Speci		: Rabbit			
Metho Resul		: OECD Test G : No skin irritatio			
ive201	ı	. INU SKITTITIALI	ווע		
2,2'-d	imethyl-4,4'-methyle	nebis(cyclohexylam	line):		
Speci		: Rabbit			
	sment	: Causes burns.			
Metho Resul		: OECD Test Guideline 404 : Causes burns.			
GLP	-	: no			
Speci Asses	es sment		synthetic macromolecular bio-barrierCauses burns.		

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ersion D	Revision Date: 01/25/2022	SDS Number: 400001007909	Date of last issue: 08/18/2017 Date of first issue: 04/01/2016			
Method Result GLP		: OECD Test Gu : Causes burns. : yes				
2-ami	noethanol:					
Specie Metho Result	od	 Rabbit OECD Test Guideline 404 Causes burns. 				
Serio	us eye damage/eye	irritation				
<u>Comp</u>	oonents:					
Diethy	ylenetriamine:					
Specie Result Asses		: Rabbit : Corrosive : Corrosive				
4,4'-is	opropylidenediphe	nol:				
Specie Result Metho	t		Rabbit Irreversible effects on the eye OECD Test Guideline 405			
2,2'-d	imethyl-4,4'-methyle	enebis(cyclohexylami	ine):			
	t sure time ssment	: 24 h : Risk of serious	 Rabbit Irreversible effects on the eye 24 h Risk of serious damage to eyes. OECD Test Guideline 405 			
2-ami	noethanol:					
Specie Result Asses		: Rabbit : Corrosive : Corrosive	Corrosive			
Respi	ratory or skin sensi	tisation				
Comp	oonents:					
Diethy	ylenetriamine:					
Expos Specie Metho Result Rema	od t	: Skin : Mouse : OECD Test Gu : May cause ser : Causes sensiti	nsitisation by skin contact.			
Expos Specie Result		: Mouse	Respiratory Tract Mouse Does not cause respiratory sensitisation.			

4,4'-isopropylidenediphenol:



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Speci		: Mouse					
Method			Guideline 429				
Resul	t	: Does not ca	use skin sensitisation.				
	sure routes	: Skin					
Species		: Humans					
	ssment		May cause sensitisation by skin contact.Causes sensitisation.				
Resul	t	: Causes sen					
2,2'-d	imethyl-4,4'-methy	lenebis(cyclohexyla	amine):				
Test Type		: Maximisatio	n Test				
Expos	sure routes	: Skin					
Speci	es	: Guinea pig					
	ssment		se sensitisation on laboratory animals.				
Metho	bd	: OECD Test	Guideline 406				
Resul	t	: Did not caus	se sensitisation on laboratory animals.				
GLP		: no					
2-ami	noethanol:						
Expos	sure routes	: Skin					
Speci		: Guinea pig					
Result		: Does not cause skin sensitisation.					
Germ	cell mutagenicity						
<u>Comp</u>	oonents:						
Dieth	ylenetriamine:						
Genot	toxicity in vivo	: Cell type: So	omatic				
		Application I	Route: Oral				
		Dose: 85 - 8					
			CD Test Guideline 474				
		Result: nega	ative				
		Application I					
		Result: nega	ative				
4,4'-is	sopropylidenediphe	enol:					
Genot	toxicity in vitro	: Metabolic ad	ctivation: with and without metabolic activation				
		Result: nega	ative				
Genot	toxicity in vivo	: Method: OE	CD Test Guideline 474				
	-	Result: nega	ative				
2.2'-d	imethvl-4.4'-methv	lenebis(cyclohexyla	amine):				
	toxicity in vitro		n vitro mammalian cell gene mutation test				
Conor			: Chinese hamster lung cells				
			ctivation: with and without metabolic activation				
			CD Test Guideline 476				
		Result: nega					
		GLP: yes					
		Test Type: 0	Chromosome aberration test in vitro				



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		Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative GLP: yes
		Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative GLP: yes
2-amiı	noethanol:	
Genot	oxicity in vitro	: Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative
		Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative
		Metabolic activation: negative Result: negative
Genot	oxicity in vivo	: Application Route: Oral Exposure time: 24 h Dose: 375 - 1500 mg/kg Method: OECD Test Guideline 474 Result: negative
Carcir	nogenicity	
<u>Comp</u>	<u>onents:</u>	
Diethy	lenetriamine:	
Specie		: Mouse, male
	ation Route	: Dermal
Dose Freque	ency of Treatment	: 56.3 mg/kg : 3 daily
Result		: negative
4,4'-is	opropylidenedipher	ol:
Specie	es	: Rat, male and female
Application Route		: Oral
	ure time	: 103 weeks
Result	ency of Treatment	: 7 daily : negative
IARC		ent of this product present at levels greater than or equal to 0.1% is probable, possible or confirmed human carcinogen by IARC.
OSHA		ent of this product present at levels greater than or equal to 0.1% is list of regulated carcinogens.

SAFE



SAFET	Y DATA SHEET		HUNTSMAN		
			Enriching lives through innovation		
EPOC A	AST® 1618 B U	IS			
Version 2.0	Revision Date: 01/25/2022	SDS Number: 400001007909	Date of last issue: 08/18/2017 Date of first issue: 04/01/2016		
NTP			Print Date 03/17/2022 esent at levels greater than or equal to 0.1% is ed carcinogen by NTP.		
Repro	oductive toxicity				
Com	oonents:				
	ylenetriamine:				
	ts on fertility	Application Ro General Toxici	 Species: Rat, male and female Application Route: Oral General Toxicity - Parent: NOAEL: 30 mg/kg wet weight Method: OECD Test Guideline 421 		
	ts on foetal opment	General Toxici Method: OEC	Species: Rat Application Route: Oral General Toxicity Maternal: NOAEL: 100 mg/kg body weight Method: OECD Test Guideline 421 Result: No adverse effects		
4,4'-is	sopropylidenediphe	nol:			
	ts on fertility	: Species: Rat, r Application Ro Method: OECI) Test Guideline 416 ptoxic effects and adverse effects on the		
	ts on foetal opment	Method: OECE			
	oductive toxicity - ssment		e of adverse effects on sexual function and on animal experiments.		
2,2'-d	limethyl-4,4'-methyle	enebis(cyclohexylam	ine):		
	ts on fertility	: Species: Rat, r Application Ro Dose: 1.5/5/15 General Toxici	nale and female ute: Oral		
	ts on foetal opment	Duration of Sir Frequency of T General Toxici Developmenta Method: OECE	emale		

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ersion Revision 0 01/25/20		DS Number:)0001007909	Date of last issue: 08/18/2017 Date of first issue: 04/01/2016
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		General Toxicity	emale : Oral g bw/d e Treatment: 23 d atment: 7 days/week Maternal: NOAEL: 1 mg/kg body weight oxicity: NOAEL: 9 mg/kg body weight
2-aminoethano	I:		
Effects on fertilit	у :	Method: OECD To	: Oral eproductive organs est Guideline 416 s on fertility and early embryonic
Effects on foetal development	I :	Species: Rat Application Route General Toxicity M Method: OECD To Result: No teratog	Maternal: NOAEL: 120 mg/kg body weight est Guideline 414
		Species: Rat Application Route General Toxicity M Method: OECD To Result: No teratog	Maternal: NOAEL: 75 mg/kg body weight est Guideline 414
STOT - single e	exposure		
Components:			
Diethylenetrian	nine:		
Target Organs Assessment	:	Respiratory Tract May cause respira	
4,4'-isopropylic	lenediphenol:		
Assessment	:		mixture is classified as specific target organ posure, category 3 with respiratory tract
2-aminoethano	l:		
Exposure routes Target Organs Assessment		Inhalation Respiratory Tract May cause respira	

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rsion)	Revision Date: 01/25/2022	SDS Number:Date of last issue: 08/18/2017400001007909Date of first issue: 04/01/2016			
sтот	- repeated exposu	e Print Date 0	3/17/20		
	onents:				
		enebis(cyclohexylamine):			
	sure routes	: Ingestion			
	t Organs	: Liver, Kidney, Skeletal muscle, Heart			
Assessment : May cause damage to organs through prolonged or i exposure.					
Repe	ated dose toxicity				
Comp	<u>oonents:</u>				
Dieth	ylenetriamine:				
Speci		: Rat, male and female			
NOEC		: 70 - 80 mg/m3			
	ation Route	: Ingestion			
	atmosphere	: vapour			
	sure time per of exposures	: 360 h : 7 d			
Metho	•	: Subchronic toxicity			
Speci	es	: Rat, male and female			
NOAE	EL	: 114 mg/kg/d			
	cation Route	: Skin contact			
	sure time	: 9,600 h			
Metho	er of exposures	: 6 d			
Metho	Ju	: Chronic toxicity			
4,4'-is	sopropylidenediphe	nol:			
Speci		: Dog, male and female			
NOEC		: 75 mg/kg, 10 mg/m3			
	cation Route	: Ingestion			
	atmosphere	: dust/mist			
	sure time per of exposures	: 2,160 h : 7 d			
Metho		: Subchronic toxicity			
Speci	es	: Rat, male and female			
LÖAE		: 600 mg/kg			
	ation Route	: Ingestion			
•	sure time	: 672 h			
Metho	er of exposures	: 7 d : Subchronic toxicity			
Metho	Ju				
		enebis(cyclohexylamine):			
Speci		: Rat, male and female			
NOE(cation Route	: 12 mg/m3 : Inhalation			
	atmosphere	: vapour			
	sure time	: 6 h			
	er of exposures	5 days/week			
Metho	-	: OECD Test Guideline 413			
GLP		: yes			



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Expo Num Dose Meth GLP	EL cation Route sure time ber of exposures	 Rat, male and fe 2.5 mg/kg oral (gavage) 3 months 5 days/week 2.5, 12, 60 mg/k OECD Test Gui yes Liver, Kidney, S 	cg bw/day
2-am	inoethanol:		
Test Expo	C cation Route atmosphere sure time ber of exposures	 Rat, male and fe 300 mg/m3 Ingestion vapour 672 h 7 d OECD Test Gui 	
-	ration toxicity ata available		
-	erience with human e	xposure	
	cology, Metabolism, ata available	Distribution	
	ological effects ata available		
	ner information ata available		
SECTION	12. ECOLOGICAL II	FORMATION	
Ecot	oxicity		
<u>Com</u>	ponents:		

Diethylenetriamine:

Toxicity to fish :	LC50: 430 mg/l Exposure time: 96 h Test Type: semi-static test Test substance: Fresh water Method: Directive 67/548/EEC, Annex V, C.1.
Toxicity to daphnia and other : aquatic invertebrates	EC50 (Daphnia magna (Water flea)): 64.6 mg/l Exposure time: 48 h Test Type: static test Test substance: Fresh water Method: Regulation (EC) No. 440/2008, Annex, C.2
	EC50 (Daphnia magna (Water flea)): 16 mg/l Exposure time: 48 h Test Type: static test

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rsion	Revision Date: 01/25/2022		9S Number: 0001007909	Date of last issue: 08/18/2017 Date of first issue: 04/01/2016
			Test substance: Method: DIN 384	
Toxicity to algae/aquatic plants		:	mg/l Exposure time: 7 Test Type: static Test substance:	test
Toxicity to fish (Chronic toxicity)		:	Exposure time: 2 Test Type: semi Test substance:	static test
aquati	ty to daphnia and other ic invertebrates nic toxicity)	:	Exposure time: 2 Test Type: semi Test substance:	static test
Toxicity to soil dwelling organisms		:	Exposure time: 5	etida (earthworms)): > 1,000 mg/kg 56 d Fest Guideline 222
Ecoto	oxicology Assessment			
Acute	aquatic toxicity	:	This product has	no known ecotoxicological effects.
4,4'-is	opropylidenediphenol	:		
Toxici	ty to fish	:	LC50 (Oncorhyn Exposure time: §	chus mykiss (rainbow trout)): 7.5 mg/l 96 h
	ty to daphnia and other ic invertebrates	:	EC50: 3.9 - 10.2 Exposure time: 4	
			(Ceriodaphnia c	ubia (Water flea)):
Toxici plants	ty to algae/aquatic	:	EC50 (Selenastr mg/l Exposure time: §	um capricornutum (green algae)): 2.5 - 3.1 96 h
Toxici toxicit	ty to fish (Chronic y)	:	Exposure time: 4 Test Type: flow-t Test substance: Method: Fish Life	hrough test Fresh water

Ecotoxicology Assessment

Chronic aquatic toxicity	:	Toxic to aquatic life with long lasting effects.
--------------------------	---	--

2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine):



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Toxicity to fish

Toxicity plants

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to algae/aquatic	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 7.9 mg/l Exposure time: 72 h Test Type: static test Analytical monitoring: yes Test substance: Fresh water Method: OECD Test Guideline 201
		GLP: yes EC10 (Pseudokirchneriella subcapitata (green algae)): 4.1 mg/l Exposure time: 72 h Test Type: static test Analytical monitoring: yes Test substance: Fresh water Method: OECD Test Guideline 201 GLP: yes
to fish (Chronic	:	NOEC (Fish): > 1 mg/l

Toxicity to fish (Chronic toxicity)	:	NOEC (Fish): > 1 mg/l Method: QSAR GLP: no Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 4 mg/l Exposure time: 21 d Test Type: semi-static test Analytical monitoring: yes Test substance: Fresh water Method: OECD Test Guideline 211 GLP: yes
Toxicity to microorganisms	:	EC20 (activated sludge): 160 mg/l Exposure time: 30 min Test Type: static test

Analytical monitoring: no Method: ISO 8192



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		GLP: no	Print Date 03/17/202
	xicology Assessment		
Chron	ic aquatic toxicity	: Toxic to aquat	ic life with long lasting effects.
2-amii	noethanol:		
Toxicity to fish		Exposure time Test Type: ser	
Toxicity to daphnia and other aquatic invertebrates		Exposure time Test Type: sta Test substanc	
Toxicity to algae/aquatic plants			
Toxicity to fish (Chronic toxicity)		Exposure time Test substanc	is latipes (Orange-red killifish)): 1.2 mg/l :: 30 d e: Fresh water D Test Guideline 210
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)		Exposure time Test substanc	nia magna (Water flea)): 0.85 mg/l e: 21 d e: Fresh water D Test Guideline 211
Persis	stence and degradabili	ty	
<u>Comp</u>	onents:		
Diethy	lenetriamine:		
Biodegradability		Biodegradation Exposure time	y biodegradable. n: 87 %
Photodegradation		: Test Type: Air Rate constant Degradation (d	
4,4'-isopropylidenediphenol: Biodegradability			adily biodegradable.

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		Biodegradation: 1 - 2 % Exposure time: 28 d
2,2'-d	limethyl-4,4'-methyl	enebis(cyclohexylamine):
Biode	egradability	: aerobic Inoculum: Sewage (STP effluent) Concentration: 100 mg/l Result: Not readily biodegradable. Biodegradation: 0 % Exposure time: 28 d Method: OECD Test Guideline 301C Test substance: Fresh water GLP: yes
2-ami	inoethanol:	
Biode	egradability	 Inoculum: activated sludge Concentration: 20 mg/l Result: Readily biodegradable. Biodegradation: > 90 % Exposure time: 21 d Method: OECD Test Guideline 301A
Photo	odegradation	: Test Type: Air Rate constant: 35.844 Degradation (direct photolysis): 50 %
Bioad	ccumulative potentia	al
<u>Com</u>	ponents:	
Dieth	ylenetriamine:	
Bioac	cumulation	 Species: Cyprinus carpio (Carp) Bioconcentration factor (BCF): 0.3 - 6.3 Exposure time: 42 d Test substance: Fresh water Method: flow-through test Remarks: Bioaccumulation is unlikely.
	ion coefficient: n- ol/water	: log Pow: -1.58 (68 °F / 20 °C) pH: 7
2,2'-d	limethyl-4,4'-methyl	enebis(cyclohexylamine):
Bioac	cumulation	 Species: Cyprinus carpio (Carp) Bioconcentration factor (BCF): < 60 Exposure time: 60 d Temperature: 75 °F / 24 °C Concentration: 0.02 mg/l Test substance: Fresh water Method: OECD Test Guideline 305C GLP: yes Remarks: Does not bioaccumulate.
	ion coefficient: n- ol/water	: log Pow: 2.3 (73 °F / 23 °C) pH: 10

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			Method: OECD Te	est Guideline 107	Print Date 03/17/202
2-ami	noethanol:				
	on coefficient: n- ol/water	:	log Pow: -1.31 (77	′ °F / 25 °C)	
Mobil	ity in soil				
Comp	oonents:				
Dieth	ylenetriamine:				
	oution among Inmental compartments	:	Koc: 19111		
2,2'-d	imethyl-4,4'-methylene	bis	(cyclohexylamine):	
	oution among onmental compartments	:	Koc: 1195		
2-ami	noethanol:				
	oution among onmental compartments	:	Koc: 1.167		
Other	adverse effects				
<u>Produ</u>	<u>ict:</u>				
Ozone	e-Depletion Potential	:	Protection of Strat Substances Remarks: This pro manufactured with	R Protection of Environ cospheric Ozone - CAA oduct neither contains, n a Class I or Class II C t Section 602 (40 CFR	Section 602 Class I nor was DDS as defined by the
Additi inform	onal ecological nation	:	unprofessional ha	hazard cannot be excl ndling or disposal. e with long lasting effe	

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods		
Waste from residues	:	Dispose of contents and container in accordance with all local, regional, national and international regulations. Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

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SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR		
UN/ID No.	:	UN 2922
Proper shipping name	:	Corrosive liquid, toxic, n.o.s. (DIETHYLENETRIAMINE, cycloaliphatic polyamine)
Class	:	8
Subsidiary risk	:	6.1
Packing group	:	II
Labels	:	Corrosive, Toxic
Packing instruction (cargo aircraft)	:	855
Packing instruction (passenger aircraft)	:	851
IMDG-Code		
UN number	:	UN 2922
Proper shipping name	:	CORROSIVE LIQUID, TOXIC, N.O.S. (DIETHYLENETRIAMINE, cycloaliphatic polyamine)
Class	:	8
Subsidiary risk	:	6.1
Packing group	:	
Labels	:	8 (6.1)
EmS Code	:	F-A, S-B
Marine pollutant	:	yes(4,4'-Isopropylidenediphenol, cycloaliphatic polyamine)

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

Not applicable for product as supplied.

National Regulations

49 CFR	UN 2922
UN/ID/NA number	Corrosive liquids, toxic, n.o.s.
Proper shipping name	(DIETHYLENETRIAMINE, cycloaliphatic polyamine)
Class	8
Subsidiary risk	6.1
Packing group	II
Labels	CORROSIVE, TOXIC
ERG Code	154
Marine pollutant	yes(4,4'-Isopropylidenediphenol, cycloaliphatic polyamine)

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.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 311/312 Hazards

: Acute toxicity (any route of exposure) Respiratory or skin sensitisation

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		Reproductive to		Print Date 03/17/2022
		Specific target Skin corrosion	organ toxicity (single or rep	peated exposure)
SARA 313		5	components are subject to SARA Title III, Section 313	
		4,4'- isopropylidened	80-05-7 diphenol	>= 30 - < 50 %

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

California Prop. 65

WARNING: This product can expose you to chemicals including 2,2'-iminodiethanol, which is/are known to the State of California to cause cancer, and

4,4'-isopropylidenediphenol, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

The components of this product are reported in the following inventories:

DSL	: All components of this product are on the Canadian DSL
DSL AIIC	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory
NZIOC ENCS	: On the inventory, or in compliance with the inventory
KECI PICCS	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
TCSI TSCA	: On the inventory, or in compliance with the inventory
TSCA	: All substances listed as active on the TSCA inventory

Inventories

AIIC (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIOC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TECI (Thailand), TSCA (USA)

TSCA - 5(a) Significant New Use Rule List of Chemicals

No substances are subject to a Significant New Use Rule.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

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



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SECTION 16. OTHER INFORMATION

Further information





Special hazard

HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*' represents a chronic hazard, while the "/" represents the absence of a chronic hazard

Revision Date	:	01/25/2022
ACGIH NIOSH REL OSHA P0	:	USA. ACGIH Threshold Limit Values (TLV) USA. NIOSH Recommended Exposure Limits USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA P0 / TWA	:	8-hour time weighted average
OSHA P0 / STEL	:	Short-term exposure limit
OSHA Z-1 / TWA	:	8-hour time weighted average

The information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.





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Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

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NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED HUNTSMAN EMPLOYEE IS AUTHORIZED TO PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR HUNTSMAN PRODUCTS. DATA SHEETS FROM UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE.

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SECT	ION 1. IDENTIFICATION			
Р	roduct name	: EPOCAST® 1	618 D US	
Ν	lanufacturer or supplier's c	letails		
	ompany name of supplier ddress	: P.O. Box 4980 The Woodland TX 77387		
Т	elephone		ey: (800) 257-5547	
	-mail address of person esponsible for the SDS	: Global_Produc	t_EHS_AdMat@huntsman.com	
E	mergency telephone number	Chemtrec: (80)) 424-9300 or (703) 527-3887	
R	ecommended use of the cl	nemical and restric	tions on use	
R	ecommended use	: Epoxy constitu	ents	

SECTION 2. HAZARDS IDENTIFICATION

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

Skin irritation	: Category 2
Eye irritation	: Category 2A
Skin sensitisation	: Category 1
Germ cell mutagenicity	: Category 1B
Carcinogenicity	: Category 2
Reproductive toxicity	: Category 2
Short-term (acute) aquatic hazard	: Category 2
Chronic aquatic toxicity	: Category 2
GHS label elements Hazard pictograms	:
Signal word	: Danger



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Hazar	rd statements	H319 Causes se H340 May cause H351 Suspected H361 Suspected	Print Date 03/17/2022 kin irritation. e an allergic skin reaction. erious eye irritation. e genetic defects. d of causing cancer. d of damaging fertility or the unborn child. quatic life with long lasting effects.
	utionary statements	 P202 Do not har and understood. P261 Avoid breat P264 Wash skint P272 Contamination P273 Avoid releated by the workplace. P273 Avoid releated by the protocol P280 Wear protocol P280 Wear protocol P302 + P352 IF P302 + P352 IF P305 + P351 + If for several minution P308 + P313 IF attention. P333 + P313 If eattention. P337 + P313 If eattention. P362 Take off col P391 Collect spite Storage: P405 Store lockeded Disposal: P501 Dispose of 	athing mist or vapours. thoroughly after handling. ated work clothing must not be allowed out of ase to the environment. ective gloves/ protective clothing/ eye protection/ ON SKIN: Wash with plenty of soap and water. P338 IF IN EYES: Rinse cautiously with water tes. Remove contact lenses, if present and easy rinsing. exposed or concerned: Get medical advice/ skin irritation or rash occurs: Get medical advice/ eye irritation persists: Get medical advice/ ontaminated clothing and wash before reuse. illage.
	· hazards known.		

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture	:	Mixture
---------------------	---	---------

Chemical nature : Epoxy constituents

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
2,2'-[(1-methylethylidene)bis(4,1- phenyleneoxymethylene)]bisoxirane	1675-54-3	20 - 30

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	Glass, oxide, chemicals		65997-17-3	10 - 20
-	2,3-epoxypropyl o-tolyl ethe	er	2210-79-9	10 - 20
	Formaldehyde, oligomeric with 1-chloro-2,3-epoxypro		9003-36-5	5 - 10
	2-ethyl-2-[[(1-oxoallyl)oxy]n propanediyl diacrylate	nethyl]-1,3-	15625-89-5	5 - 10
_	dimethyl methylphosphona	te	756-79-6	1 - 5
	Siloxanes and Silicones, di hydroxypropyl Me, ethoxyla		68937-54-2	1 - 5
_	dimethyl phosphonate		868-85-9	0.1 - 1
-	silicon dioxide		7631-86-9	0.1 - 1
F	melamine		108-78-1	0.1 - 1
_	ethylbenzene		100-41-4	0.1 - 1

The specific chemical identity and/or exact percentage (concentration) of composition may be withheld as a trade secret.

Both 25068-38-6 and 1675-54-3 can be used to describe the epoxy resin which is produced through the reaction of bisphenol A and epichlorohydrin

SECTION 4. FIRST AID MEASURES

General advice	:	Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance. Treat symptomatically. Get medical attention if symptoms occur.
If inhaled	:	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
In case of skin contact	:	If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	:	Immediately flush eye(s) with plenty of water. Remove contact lenses. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	:	Induce vomiting immediately and call a physician. Keep respiratory tract clear.



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			If symptoms persi	Print Date 03/17/2022 ng by mouth to an unconscious person. ist, call a physician. diately to hospital.
	important symptoms iffects, both acute and ed	:	None known.	
Prote	ction of first-aiders	:	and use the record If potential for exp personal protective Avoid inhalation, in No action shall be suitable training.	ngestion and contact with skin and eyes. e taken involving any personal risk or without ous to the person providing aid to give
Notes	s to physician	:	Treat symptomati	cally.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	Exercise caution when using a high volume water jet as it may scatter and spread fire
Specific hazards during firefighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Carbon oxides Halogenated compounds Carbon dioxide (CO2) Carbon monoxide Silicon oxides
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	:	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 firefighters	:	In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES



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prot	sonal precautions, ective equipment and ergency procedures	:	Use personal pro Refer to protectiv	Print Date 03/17/2022 tective equipment. e measures listed in sections 7 and 8.
Env	ironmental precautions	:	Prevent further le	rom entering drains. akage or spillage if safe to do so. taminates rivers and lakes or drains inform ities.
	hods and materials for ainment and cleaning up	:	acid binder, unive	t absorbent material (e.g. sand, silica gel, ersal binder, sawdust). closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Advice on safe handling	:	Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitisation of susceptible persons. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	:	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Keep in properly labelled containers.
Materials to avoid	:	For incompatible materials please refer to Section 10 of this SDS.
Recommended storage temperature	:	36 - 104 °F / 2 - 40 °C
Further information on storage stability	:	Stable under normal conditions.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components CAS-No. Value type Control Basis	15
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		(Form of exposure)	parameters / Permissible concentration	
2-ethyl-2-[[(1- oxoallyl)oxy]methyl]-1,3- propanediyl diacrylate	15625-89-5	TWA	1 mg/m3	US WEEL
silicon dioxide	7631-86-9	TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m3 / %SiO2 (Silica)	OSHA Z-3
		TWA (Respirable dust)	0.05 mg/m3 (Silica)	NIOSH REL
		TWA	6 mg/m3 (Silica)	NIOSH REL
		PEL (respirable)	0.05 mg/m3	OSHA CARC
ethylbenzene	100-41-4	TWA	20 ppm	ACGIH
		TWA	100 ppm 435 mg/m3	NIOSH REL
		ST	125 ppm 545 mg/m3	NIOSH REL
		TWA	100 ppm 435 mg/m3	OSHA Z-1
		STEL	125 ppm 545 mg/m3	OSHA P0
		TWA	100 ppm 435 mg/m3	OSHA P0

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Samplin g time	Permissible concentratio n	Basis
ethylbenzene	100-41-4	Sum of mandelic acid and phenyl glyoxylic acid	Urine	End of shift (As soon as possible after exposure ceases)	0.15 g/g creatinine	ACGIH BEI

Personal protective equipment

Respiratory protection

: General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other



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		circumstance adequate pro	Print Date 03/17/2022 where air purifying respirators may not provide tection.
Mate	l protection erial k through time	: butyl-rubber : >8 h	
Mate Mate Brea		: Solvent-resis : Nitrile rubber : 10 - 480 min	tant gloves (butyl-rubber)
Rem	arks	approved star chemical proc necessary. The suitability	istant, impervious gloves complying with an ndard should be worn at all times when handling ducts if a risk assessment indicates this is of for a specific workplace should be discussed ucers of the protective gloves.
Eyeı	protection	Tightly fitting	tle with pure water safety goggles ield and protective suit for abnormal processing
Skin	and body protection		othing protection according to the amount and of the dangerous substance at the work place.
Hygie	ene measures	When using c	lo not eat or drink. lo not smoke. pefore breaks and at the end of workday.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: paste
Colour	: off-white
Odour	: slight
Odour Threshold	: No data is available on the product itself.
рН	: substance/mixture is non-soluble (in water)
Melting point/freezing point	: No data available
Boiling point	: > 392 °F / > 200 °C
Flash point	: > 212 °F / > 100 °C Method: Pensky-Martens closed cup
Evaporation rate	: No data is available on the product itself.
Flammability (solid, gas)	: No data is available on the product itself.

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	Flomm	ability (liquids)		No data is availa	Print Date 03/17/2022 ole on the product itself.
		explosion limit / Upper bility limit	:	No data is availa	ble on the product itself.
		explosion limit / Lower bility limit	:	No data is availa	ble on the product itself.
	Vapour	pressure	:	< 1 hPa (68 °F / 2	20 °C)
	Relative	e vapour density	:	No data is availa	ble on the product itself.
	Relative	e density	:	No data is availa	ble on the product itself.
	Density	/	:	0.63 - 0.66 g/cm3	3 (77 °F / 25 °C)
	Solubili Wate	ty(ies) er solubility	:	insoluble (68 °F	/ 20 °C)
	Solu	bility in other solvents	:	No data is availa	ble on the product itself.
	Partitio octanol	n coefficient: n- /water	:	No data is availa	ble on the product itself.
		nition temperature	:	No data is availa	ole on the product itself.
	Decom	position temperature	:	> 392 °F / > 200	°C
		celerating position temperature	:	No data is availa	ble on the product itself.
	Viscosi	ty	:	No data is availa	ble on the product itself.
	Explosi	ve properties	:	No data is availa	ble on the product itself.
	Oxidizir	ng properties	:	No data is availa	ble on the product itself.
	Molecu	lar weight	:	No data available	
	Particle	e size	:	No data is availa	ble on the product itself.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No hazards to be specially mentioned.
Conditions to avoid	:	None known.
Incompatible materials	:	None known.



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Hazar produ	dous decomposition cts	: carbon diox carbon mon Halogenate	
ECTION	11. TOXICOLOGICAL	INFORMATION	
Acute	e toxicity		
<u>Produ</u>	<u>uct:</u>		
Acute	oral toxicity		y estimate: > 5,000 mg/kg culation method
Acute	dermal toxicity		y estimate: > 5,000 mg/kg culation method
Comp	oonents:		
2,2'-[(1-methylethylidene)k	ois(4,1-phenylened	oxymethylene)]bisoxirane:
Acute	oral toxicity	Method: OEC Assessment: toxicity	emale): > 2,000 mg/kg CD Test Guideline 420 : The substance or mixture has no acute oral o mortality observed at this dose.
Acute	dermal toxicity	Method: OE0	nale and female): > 2,000 mg/kg CD Test Guideline 402 : The substance or mixture has no acute derma
2,3-ep	ooxypropyl o-tolyl etl	ner:	
	oral toxicity	: LD50 (Rat, n	nale and female): > 5,000 mg/kg CD Test Guideline 401
Acute	inhalation toxicity	Exposure tim Test atmosp	
Forma	aldehyde, oligomeric	reaction products	s with 1-chloro-2,3-epoxypropane and pheno
Acute	oral toxicity		nale and female): > 5,000 mg/kg CD Test Guideline 401
Acute	dermal toxicity	Method: OE0	nale and female): > 2,000 mg/kg CD Test Guideline 402 : The substance or mixture has no acute derma
2-ethy	yl-2-[[(1-oxoallyl)oxy]	methyl]-1,3-propa	nediyl diacrylate:
-	oral toxicity	: LD50 (Rat): :	

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		-	Exposure time Test atmosphe Assessment: T nhalation toxic	re: vapour he substance or mixture has no acute
Acute	e dermal toxicity	L	LD50 (Rabbit): Assessment: T toxicity	5,170 mg/kg he substance or mixture has no acute dermal
dime	thyl methylphospho	nate:		
Acute	e oral toxicity		Method: OECE	le and female): > 5,000 mg/kg) Test Guideline 401 he component/mixture is moderately toxic after n.
Acute	inhalation toxicity	-	Exposure time Test atmosphe	
Acute	e dermal toxicity		Method: OECE	le and female): > 4,640 mg/kg) Test Guideline 402 he substance or mixture has no acute dermal
Silox	anes and Silicones,	di-Me, 3	3-hydroxyprop	byl Me, ethoxylated:
Acute	e oral toxicity		LD50 (Rat): > 5 Method: estima	
Acute	inhalation toxicity	-	Exposure time: Test atmosphe	re: dust/mist he substance or mixture has no acute
Acute	e dermal toxicity		LD50 (Rabbit, Method: estima	male): > 5,000 mg/kg ated
dime	thyl phosphonate:			
Acute	e oral toxicity			t, male): 3,283 mg/kg 9 Test Guideline 401
				t, female): 3,040 mg/kg 9 Test Guideline 401
Acute	inhalation toxicity		LC50 (Rat, ma Exposure time: Test atmosphe	
silico	on dioxide:			
Acute	e oral toxicity	:	LD50 (Rat): > Method: OECD	5,000 mg/kg 9 Test Guideline 401
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sion	Revision Date: 02/01/2022	SDS Number:Date of last issue: 05/20/2400001009082Date of first issue: 04/12/2			
Acute inhalation toxicity		Prir : LC50 (Rat, male and female): > 58.8 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403	nt Date 03/17/202		
Acute	dermal toxicity	: LD50 (Rabbit): > 5,000 mg/kg	LD50 (Rabbit): > 5,000 mg/kg		
melar	nine:				
Acute	oral toxicity	: LD50 (Rat, male and female): 3,161 - 3,828 r	ng/kg		
Acute inhalation toxicity		Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403	Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute		
ethylk	penzene:				
Acute	oral toxicity	: LD50 (Rat): 3,500 - 5,460 mg/kg Assessment: The substance or mixture has r toxicity	io acute oral		
Acute	inhalation toxicity	: LC50 (Rat): 17.3 mg/l Exposure time: 4 h Test atmosphere: vapour Assessment: The component/mixture is mod short term inhalation.	erately toxic after		
Acute	dermal toxicity	: LD50 (Rabbit): 15,400 mg/kg Assessment: The substance or mixture has r toxicity	io acute dermal		
Skin o	corrosion/irritation				
Comp	oonents:				
2,2'-[(1-methylethylidene)	s(4,1-phenyleneoxymethylene)]bisoxirane:			

•	• •	• •	
Species		:	Rabbit
Exposure time		:	4 h
Assessment		:	Irritating to skin.
Method		:	OECD Test Guideline 404
Result		:	Irritating to skin.

Glass, oxide, chemicals:

Species :	Rabbit
Assessment :	No skin irritation
Method :	OECD Test Guideline 404
Result :	Normally reversible injuries

2,3-epoxypropyl o-tolyl ether:

Assessment	:	Irritating to skin.
Result	:	Severe skin irritation





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rsion	Revision Date: 02/01/2022	SDS Number: 400001009082	Date of last issue: 05/20/2020 Date of first issue: 04/12/2017		
Forma	aldehvde. oligomeri	c reaction products	Print Date 03/17/20 with 1-chloro-2,3-epoxypropane and phenol		
Specie		: Rabbit			
Metho		: OECD Test Gu	uideline 404		
Result		: Irritating to ski			
rtooun		. Initiating to only			
2-ethy	vl-2-[[(1-oxoallyl)oxy	/]methyl]-1,3-propane	ediyl diacrylate:		
Specie		: Rabbit			
	ure time	: 4 h			
Metho		: OECD Test Gu	lideline 404		
Result		: Skin irritation			
GLP		: yes			
dimet	hyl methylphospho	nate:			
Specie	es	: Rabbit			
Asses		: No skin irritatio	n		
Metho	d	: OECD Test Gu	uideline 404		
Result	:	: No skin irritatio	on		
Siloxa	nes and Silicones.	di-Me, 3-hydroxypro	pyl Me, ethoxylated:		
Result		: slight irritation			
silicor	n dioxide:				
Specie		: Rabbit			
Asses		: No skin irritatio	n		
Metho					
Result		: No skin irritation			
melarr	nine:				
Specie	25	: Rabbit			
Metho		: OECD Test Gu	uideline 404		
Result	:	: No skin irritatio	: No skin irritation		
Seriou	us eye damage/eye	irritation			
	onents:				
2,2'-[(1	1-methylethylidene)	bis(4,1-phenyleneox	ymethylene)]bisoxirane:		
Specie		: Rabbit			
Result		: Irritating to eye			
Asses		: Irritating to eye			
Metho	d	: OECD Test Gu	uideline 405		
2,3-ер	oxypropyl o-tolyl e	ther:			
Specie	es	: Rabbit			
Result		: Normally rever	sible injuries		
Assessment : No eye irritation					
Method : OECD Test Guideline 405					
Forma	aldehyde, oligomeri	c reaction products	with 1-chloro-2,3-epoxypropane and pheno		
Specie	es	: Rabbit			
Result		: No eye irritatio	n		
		,			

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SAFETY	' DATA SHEET			i	HUNTS	
					Enriching lives thro	
EPOCA	ST® 1618 D L	IS				
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Metho	d	: OECD	Test Guidelin	e 405	Print Date	
2-ethy	/l-2-[[(1-oxoallyl)ox	y]methyl]-1,3-	propanediyl d	liacrylate:		
Specie		: Rabbit		•		
Result		: Eye irr				
Metho	d	: OECD	Test Guidelin	e 405		
dimet	hyl methylphosphc	nate:				
Specie	es	: Rabbit	t			
Result		: Eye irr				
Metho	d	: OECD	Test Guidelin	e 405		
Siloxa	anes and Silicones,	di-Me, 3-hydr	roxypropyl Me	e, ethoxylated:		
Result	t	: slight i	irritation			
dimet	hyl phosphonate:					
Specie	es	: Rabbit	t			
Result			e irritation			
Assessment			e irritation	105		
Method GLP		: OECD : no	: OECD Test Guideline 405 : no			
	n dioxide:					
		· Dahhit				
Specie Result		: Rabbit				
Asses			: No eye irritation : No eye irritation			
Metho			: OECD Test Guideline 405			
melan	nine:					
Specie	es	: Rabbit	t			
Rema	rks	: slight i	irritation			
Respi	ratory or skin sens	itisation				
<u>Comp</u>	onents:					
2,2'-[(1-methylethylidene)bis(4,1-phen	yleneoxymeth	ylene)]bisoxir	ane:	
Test T	уре	: Local I	lymph node as	say (LLNA)		
	ure routes	: Skin				
Specie		: Mouse		. 100		
Metho Result			Test Guideline roduct is a skin	e 429 i sensitiser, sub	-category 1B.	
	evide chamical					
	, oxide, chemicals:					
Expos Specie	ure routes	: Skin : Other				
Result			not cause skin	sensitisation		
	-	. 20001				

2,3-epoxypropyl o-tolyl ether:

Exposure routes : Skin

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SAFETY DATA SHEET EPOCAST® 1618 D US Version Revision Date: SDS Number: Date of last issue: 05/20/2020 400001009082 2.0 02/01/2022 Date of first issue: 04/12/2017 Species Guinea pig Assessment May cause sensitisation by skin contact. Method **OECD** Test Guideline 406 May cause sensitisation by skin contact. Result · Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol: Exposure routes Skin Species Mouse • Method **OECD Test Guideline 429** 2 Result May cause sensitisation by skin contact. 2-ethyl-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate: Probability or evidence of high skin sensitisation rate in Result : humans dimethyl methylphosphonate: Exposure routes Skin ٠ Species Guinea pig 2 Method : **Buehler Test** Result Does not cause skin sensitisation. : Exposure routes 2 Skin Species Humans : Method Patch Test 24 Hrs. 5 Result Does not cause skin sensitisation. • Siloxanes and Silicones, di-Me, 3-hydroxypropyl Me, ethoxylated: : Guinea pig Species Assessment : Did not cause sensitisation on laboratory animals. Did not cause sensitisation on laboratory animals. Result : dimethyl phosphonate: Test Type : Maximisation Test Guinea pig Species : Method : OECD Test Guideline 406 Result Probability or evidence of skin sensitisation in humans : GLP : yes melamine: Exposure routes 5 Skin Species : Guinea pig Method : **OECD** Test Guideline 406 Result Does not cause skin sensitisation. : Germ cell mutagenicity **Components:** 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane:

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rsion)	Revision Date: 02/01/2022	SDS Number: 400001009082	Date of last issue: 05/20/2020 Date of first issue: 04/12/2017
		Result: posi	Print Date 03/17/202 tive
		Test system Metabolic ad	
Genotoxicity in vivo		: Test Type: in Species: Mo Cell type: Go Application I Dose: 3333, Result: nega	ouse (male) erm Route: Oral 10000 mg/kg
		Species: Ra Cell type: So Application I Dose: 50,25	omatic Route: Oral 0,500,1000 mg/kg bw/day CD Test Guideline 488
2.3-ep	oxypropyl o-tolyl et	her:	
	oxicity in vitro	: Test Type: A Metabolic ad	ctivation: with and without metabolic activation CD Test Guideline 471
Genot	oxicity in vivo	: Application I Dose: 2000 Method: OE Result: nega	mg/kg CD Test Guideline 474
		Application I Exposure tir Dose: 500 n Result: nega	ng/kg
		Exposure tir Dose: 1.5 m	CD Test Guideline 478
	cell mutagenicity - sment		ults from in vitro mammalian mutagenicity assays, ucture activity relationship to known germ cell
Form	aldehvde, oligomeri	c reaction product	s with 1-chloro-2,3-epoxypropane and phenol:
	oxicity in vitro	: Metabolic ad	ctivation: with and without metabolic activation CD Test Guideline 471



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ersion	Revision Date: 02/01/2022	SDS Number: 400001009082	Date of last issue: 05/20/2020 Date of first issue: 04/12/2017			
		Method: OEC Result: positiv				
			vation: with and without metabolic activation D Test Guideline 476 e			
Geno	toxicity in vivo	: Cell type: Som Application Ro Exposure time Dose: 2000 m Method: OEC Result: negati	oute: Oral e: 48 h g/kg D Test Guideline 474			
		Application Ro Dose: 2000 m Method: OEC	Cell type: Somatic Application Route: Oral Dose: 2000 mg/kg Method: OECD Test Guideline 486 Result: negative			
2-eth	yl-2-[[(1-oxoallyl)oxy	/]methyl]-1,3-propan	ediyl diacrylate:			
Genotoxicity in vitro		Metabolic acti	rromosome aberration test in vitro vation: with and without metabolic activation D Test Guideline 473 e			
		Metabolic acti	verse mutation assay vation: with and without metabolic activation D Test Guideline 471 ve			
Genotoxicity in vivo		Species: Mous Cell type: Bon Application Ro Dose: 437.5, 8	oute: Oral 375 and 1750 mg/kg bw D Test Guideline 474			
		Test Type: co Method: OEC Result: negati	D Test Guideline 489			
dime	thyl methylphospho	nate:				
	toxicity in vivo		D Test Guideline 478 e			
	cell mutagenicity - ssment	: In vivo tests sl	howed mutagenic effects			
Silox	anes and Silicones.	di-Me, 3-hydroxypro	pyl Me, ethoxylated:			
			id not show mutagenic effects, Animal testing			

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EPOC/	AST® 1618 D US	5				
Version 2.0	Revision Date: 02/01/2022	SDS Number: 400001009082	Date of last issue: 05/20/2020 Date of first issue: 04/12/2017			
			Print Date 03/17/2022			
Asse	ssment	did not show	any mutagenic effects.			
dime	thyl phosphonate:					
Genc	otoxicity in vitro	Metabolic ad	: Salmonella typhimurium ctivation: with and without metabolic activation CD Test Guideline 471			
		Metabolic ad	: Salmonella typhimurium ctivation: with and without metabolic activation CD Test Guideline 471			
		Test system Metabolic ad	n vitro mammalian cell gene mutation test : mouse lymphoma cells ctivation: with and without metabolic activation CD Test Guideline 476 tive			
		Test system Metabolic ad	Chromosome aberration test in vitro : Chinese hamster ovary cells ctivation: with and without metabolic activation CD Test Guideline 473 tive			
Genc	otoxicity in vivo	Species: Mc Application I	<i>I</i> icronucleus test puse (male and female) Route: Intraperitoneal injection CD Test Guideline 474 ative			
		Species: Mc Cell type: Bc Application I Dose: 0, 250	one marrow Route: Intraperitoneal injection), 500 mg/kg bw/d CD Test Guideline 474			
	n cell mutagenicity - ssment	: In vitro tests	showed mutagenic effects			
silico	on dioxide:					
	otoxicity in vitro		ctivation: with and without metabolic activation CD Test Guideline 473 ative			



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ersion D	Revision Date: 02/01/2022		S Number: 0001009082	Date of last issue: 05/20/2020 Date of first issue: 04/12/2017
				Print Date 03/17/202 ion: with and without metabolic activation est Guideline 476
				ion: with and without metabolic activation est Guideline 471
Genote	oxicity in vivo	:	Application Route Dose: 50 mg/m3 Result: negative	
melarr	nine:			
	oxicity in vitro	:		ion: with and without metabolic activation some aberration test in vitro
				ion: with and without metabolic activation nammalian cell gene mutation test
Genote	oxicity in vivo	:	Application Route Method: Skin Se Result: negative	e: Intraperitoneal injection nsitization
ethylb	enzene:			
-	oxicity in vitro	:		ion: with and without metabolic activation est Guideline 473
Genote	oxicity in vivo	:	Method: OECD T Result: negative	est Guideline 474
			Method: OECD T Result: negative	est Guideline 486
Carcir	nogenicity			
<u>Comp</u>	onents:			
		bis(4,′		nethylene)]bisoxirane:
Expos Dose Freque NOAE Metho Result	ation Route ure time ency of Treatment L d		Rat, male Oral 24 month(s) 0, 2, 15, or 100 m 7 days/week 15 mg/kg bw/day OECD Test Guid negative Digestive organs	, leline 453
Species Application Route Exposure time Dose		:	Mouse, male Dermal 24 month(s) 0, 0.1, 10, 100 m	g/kg bw/day

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Version Revision Date: SDS Number: Date of last issue: 05/20/2020 02/01/2022 400001009082 2.0 Date of first issue: 04/12/2017 Print Date 03/17/2022 Frequency of Treatment 3 days/week NOEL 0.1 mg/kg body weight Method **OECD** Test Guideline 453 negative Result : Target Organs : **Digestive organs** Species Rat, female Application Route Dermal Exposure time 24 month(s) 0.1, 100, 1000 mg/kg bw/day Dose : Frequency of Treatment 5 davs/week 5 NOEL 100 mg/kg body weight 5 **OECD** Test Guideline 453 Method : Result negative : Species : Rat, female Application Route : Oral Exposure time : 24 month(s) Dose : 0, 2, 15, or 100 mg/kg bw/day Frequency of Treatment 7 days/week : NOAEL 100 mg/kg bw/day : Method **OECD Test Guideline 453** Result ÷ negative **Target Organs** : **Digestive organs** Rat, females Species Application Route Oral Exposure time 24 month(s) 2 0, 2, 15, or 100 mg/kg bw/day Dose 2 Frequency of Treatment 2 7 days/week NOEL : 2 mg/kg bw/day Method **OECD** Test Guideline 453 5 Result negative : **Target Organs Digestive organs** : 2-ethyl-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate: **Species** Mouse 2 Species Rat : dimethyl methylphosphonate: Rat, male and female Species : **Application Route** Oral 2 Exposure time 103 weeks 2 Dose 500 mg/kg : Frequency of Treatment : 5 daily Result 5 Not classified due to inconclusive data. **Target Organs** : Kidney Target Organs : Cardio-vascular system dimethyl phosphonate: Species Rat, male and female 5 **Application Route** Oral ٠



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	evision Date: //01/2022	SDS Number: 400001009082	Date of last issue: 05/20/2020 Date of first issue: 04/12/2017	
Exposure t NOAEL LOAEL Method Result Species Application Exposure t NOAEL LOAEL Method	n Route	 103 weeks 200 mg/kg body 100 mg/kg body OECD Test Guid negative Mouse, male and Oral 103 weeks 200 100 mg/kg body OECD Test Guid 	r weight deline 451 Id female	2022
Carcinoger Assessme		: Limited evidence	e of carcinogenicity in animal studies	
silicon dic Species Application Exposure t Dose Frequency Method Result	n Route	 Rat, male and fe Oral 103 weeks 1800 - 3200 mg/ 7 daily OECD Test Guid negative 	/kg	
IARC	silicon dioxid (Silica dust,		7631-86-9 o humans	
	Glass, oxide (glass) Group 2B: P Glass, oxide (special-purp	, chemicals ossibly carcinogenic to , chemicals pose fibres)	65997-17-3 o humans 65997-17-3	
	2-ethyl-2-[[(1 Group 2B: P melamine	ossibly carcinogenic to ossibly carcinogenic to	1,3-propanediyl diacrylate 15625-89-5 o humans 108-78-1	
OSHA	OSHA speci silicon dioxic (crystalline s		nogen 7631-86-9	
NTP	silicon dioxid	human carcinogen le alline (Respirable Size	7631-86-9 e))	

Reproductive toxicity

Components:

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane:



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Effect	ts on fertility	Species: Rat, Application Ro Dose: 0, 50, 1 Duration of Sir Frequency of General Toxic General Toxic Symptoms: No Method: OEC Result: No effe	Print Date 03/17/2022 ro-generation study male and female oute: Oral 80, 540 or 750 milligram per kilogram ngle Treatment: 238 d Treatment: 1 daily ity - Parent: NOEL: 540 mg/kg body weight ity F1: NOEL: 750 mg/kg body weight o adverse effects D Test Guideline 416 ects on fertility and early embryonic were detected.
	ts on foetal opment	Duration of Sir Frequency of General Toxic Developmenta Method: Other	oute: Dermal 00 or 300 milligram per kilogram ngle Treatment: 28 d Treatment: 1 daily ity Maternal: NOAEL: 30 mg/kg body weight al Toxicity: NOAEL: 300 mg/kg body weight r guidelines atogenic effects
		Application Ro Dose: 0, 20, 6 Duration of Sin Frequency of General Toxic Developmenta Method: OEC	
		Duration of Sir Frequency of General Toxic Developmenta Method: OEC	female
	aldehyde, oligomeric ts on fertility	: Species: Rat, Application Ro Method: OEC Result: No eff	with 1-chloro-2,3-epoxypropane and phenol: male and female oute: Oral D Test Guideline 416 ects on fertility and early embryonic were detected.
	ts on foetal opment		

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2-ethyl-2-[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate: Effects on fertility Species: Rat, male and female : **Application Route: Oral** Dose: 0, 30, 100, 300 milligram per kilogram General Toxicity - Parent: NOAEL: 300 mg/kg body weight Fertility: NOAEL: 300 mg/kg body weight Method: OECD Test Guideline 422 Result: Animal testing did not show any effects on fertility. GLP: ves Effects on foetal Species: Rat, female development Application Route: Oral Dose: 500 milligram per kilogram Duration of Single Treatment: 10 d General Toxicity Maternal: NOAEL: < 500 mg/kg body weight Embryo-foetal toxicity: NOAEL: > 500 mg/kg body weight Method: OECD Test Guideline 414 Result: No effects on fertility and early embryonic development were detected. GLP: yes Species: Rabbit Application Route: Oral General Toxicity Maternal: NOAEL: > 130 mg/kg body weight Embryo-foetal toxicity: NOAEL: > 130 mg/kg body weight Method: OECD Test Guideline 414 Result: No effects on fertility and early embryonic development were detected. GLP: yes dimethyl methylphosphonate: Effects on fertility Species: Rat, male Application Route: Oral Effects on foetal : Species: Rat, female development Application Route: Oral General Toxicity Maternal: LOAEL: 1,000 mg/kg body weight Method: OECD Test Guideline 414 Result: No teratogenic effects Reproductive toxicity -: Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments. Assessment dimethyl phosphonate: Effects on fertility : Test Type: Reproduction / Developmental Toxicity Screening Test Species: Rat, male and female **Application Route: Oral** Dose: 0,30,90,270 milligram per kilogram General Toxicity - Parent: NOEL: 90 mg/kg body weight Method: OECD Test Guideline 421 Effects on foetal Species: Rat 5



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develo	opment	Dose: Gene Devel	ral Toxicity I opmental To	Print Date 03/17/2022 : Oral) milligram per kilogram /laternal: NOEL: 90 mg/kg body weight oxicity: NOEL: 90 mg/kg body weight est Guideline 421
Effect	n dioxide: s on foetal opment	Applic Gene Metho Resul Speci Applic	od: OECD To t: No teratog es: Rabbit cation Route	/laternal: NOAEL: 1,340 mg/kg body weight est Guideline 414 jenic effects
		Metho Resul Speci Applic Gene Metho	ed: OECD To t: No teratog es: Rat cation Route ral Toxicity N ed: OECD To	est Guideline 414 jenic effects
	nine: s on foetal opment	Applic Gene Metho	d: OECD T	
-	benzene: s on fertility			Parent: NOAEL: 500 ppm est Guideline 416
	s on foetal opment	Terato	ogenicity: N	/laternal: NOAEL: 500 ppm DAEL: 2,000 ppm oxicity: NOAEL: 500 ppm
	- single exposure ta available			
STOT	- repeated exposure			
Comp	oonents:			
ethylt	penzene:			
Targe	sure routes t Organs ssment		s, Liver, Kidr ause dama	ey, Central nervous system ge to organs through prolonged or repeated

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Repe	ated dose toxicity		Print Date 03/17/2022
-	oonents:		
		bis(4.1-phenvleneoxy	/methylene)]bisoxirane:
Speci		: Rat, male and f	
NOAE		: 50 mg/kg	
Applic	cation Route	: oral (gavage)	
	sure time	: 14 Weeks	
	er of exposures	: 7 d	
Dose Metho	od	: 0, 50, 250, 100 : OECD Test Gu	
Speci	es	: Rat, male and f	emale
NOAE		: >= 10 mg/kg	
	cation Route	: Skin contact	
	sure time	: 13 Weeks	
Dose	per of exposures	: 5 d : 0, 10, 100, 100	0 ma/ka/day
Metho	od	: OECD Test Gu	
Speci		: Mouse, male	
NOAE		: 100 mg/kg	
	cation Route sure time	: Skin contact : 13 Weeks	
	per of exposures	: 3 d	
Dose		: 0, 1, 10, 100 m	g/kg/day
Metho	bd	: OECD Test Gu	ideline 411
Glass	s, oxide, chemicals:		
Speci		: Rat, male	
LOEC		: 2.4 mg/m3	
	atmosphere	: dust/mist	
	sure time per of exposures	: 2,160 h · 6 h	
Metho	-		8/EEC, Annex, B.29
2,3-er	ooxypropyl o-tolyl et	her:	
Speci		: Rat, male and f	emale
NOE		: 4 ppm	
	atmosphere	: vapour	
	sure time	: 672 h	
	er of exposures	: 6 h	1.1.1
Metho	bd	: OECD Test Gu	Ideline 412
		-	vith 1-chloro-2,3-epoxypropane and phenol:
Speci		: Rat, male and f	emale
NOAE		: 250 mg/kg	
	cation Route sure time	: Ingestion : 13 Weeks	
	per of exposures	: 7 d	
Metho	•	: Subchronic toxi	citv



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0 - 41-		-l	Print Date 03/17/2022
		/]methyl]-1,3-propane	
Speci NOAE		: Rat, male and	remaie
	=∟ cation Route	: 300 mg/kg : Oral	
	sure time	: 15 - 29 d 6 h	
	per of exposures	: 7 days/week	
Dose		: 0/30/100/300 n	aa/ka bw/day
	ol Group	: yes	ig/kg bw/day
Metho	-	: OECD Test Gu	ideline 422
GLP		: yes	
Speci	ies	: Mouse, male a	nd female
NOAE	ΞL	: 0.3 mg/kg	
Applic	cation Route	: Dermal	
Expos	sure time	: 105 - 106 weel	<s< td=""></s<>
Numb	per of exposures	: 5 days/week	
Dose		: 0.3/1/3 mg/kg	
Metho	bc	: OECD Test Gu	iideline 453
GLP		: yes	
Speci		: Rat, male and	female
LOAE		: 0.3 mg/kg	
	cation Route	: Dermal	
	sure time	: 104 - 105 weel	<s< td=""></s<>
	per of exposures	: 5 days/week	
Dose		: 0.3/1/3 mg/kg	
Metho	bc	: OECD Test Gu	lideline 453
GLP		: yes	
Speci		: Mouse, male a	nd female
NOAE		: >= 200 mg/kg	
	cation Route	: Dermal	
	sure time	: 16 d	
	per of exposures	: 5 days/week	
Dose		: 12.5/25/50/100	/200 mg/kg
Speci		: Rat, male and	female
NOAE		: >= 200 mg/kg	
	cation Route	: Dermal	
	sure time	: 16 d	
Dose	per of exposures	: 5 days/week	
Dose		: 12.5/25/50/100	v200 mg/kg
Speci	ies	: Mouse, male a	nd female
NOAE		: > 12 mg/kg	
	cation Route	: Dermal	
	sure time	: 14 weeks	
	per of exposures	: 5 days/week	
Dose		: 0.75/1.5/3/6/12	t mg/kg
GLP		: yes	
Speci		: Rat, male and	female
NOAE		: >12 mg/kg	
	cation Route	: Dermal	
	sure time	: 14 weeks	
Numb	per of exposures	: 5 days/week	



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Dose GLP	9	: 0.75/1.5/3/6/12 : yes	Print Date 03/17/2022 mg/kg
dime	thyl methylphospho	nate:	
	_ cation Route sure time	: Rat, male and fe : 65 - 71 mg/kg : Ingestion : 2,160 h : Subchronic toxid	
dime	thyl phosphonate:		
Spec NOA LOAE Appli Expo	ties EL EL cation Route sure time ber of exposures	 Rat, female 100 mg/kg 200 mg/kg oral (gavage) 13 weeks 5 days/week 0, 25, 50, 100, 2 OECD Test Gui 	
silico	on dioxide:		
Test Expo	C cation Route atmosphere sure time ber of exposures	 Rat, male and fe 4000 - 4500 mg Ingestion dust/mist 13 Weeks 7 d OECD Test Gui 	/m3
mela	mine:		
	EL cation Route sure time	: Rat, male and fe : 72 mg/kg : Ingestion : 13 Weeks : Subchronic toxic	
ethyl	benzene:		
Spec NOA Appli Expo Dose Conti Meth	ies EL cation Route sure time rol Group od et Organs	 Rat, male and fe 75 mg/kg bw oral (gavage) 28 d 75/250/750 mg/ yes OECD Test Gui Liver Subacute toxicit 	kg bw deline 407
	EL cation Route sure time	: Rat, male and fe : 75 mg/kg bw : oral (gavage) : 90 d : 75/250/750 mg/	



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		Print Date 03/17/2022
	: yes	
	: OECD Test Gui	deline 408
	: Mouse, male an	nd female
	: 3.4 mg/l	
e	: Inhalation	
	: 28 d	
	: 0,4/1,7/3,4 mg/L	-
	: yes	deline 440
	: OECD Test Gui	deline 412
	: Rat, male and fe	emale
	: 1084	
	: mg/m3	
e	: inhalation (vapo	pur)
	: 104 week	
	: 325/1084/3251	mg/m3
	: yes : OECD Test Gui	deline 153
	. OECD Test Gui	
	: Rat, male and fe	emale
	: 4.74 mg/l	
e	: Inhalation	
	: 13 week	
	: 0,47/1,18/2,37/3	3,55/4,74 mg/L
	: yes : OECD Test Gui	deline 413
	: Liver	
	: Mouse, male an	nd female
	: 3251	
	: mg/m3	
e	: Inhalation	
	: 104 week	
	: 325/1084/3251	mg/m3
	: yes	
	: OECD Test Gui	deline 453
	: Rabbit, male an	d female
	: 6.8 mg/l	
e	: Inhalation	
	: 28 d	
	-	-
	: OECD Test Gui	deline 412
e		e : Inhalation

Components:

ethylbenzene:

May be fatal if swallowed and enters airways.

Experience with human exposure

No data available

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	icology, Metabolism, Dis data available	stril	oution	Print Date 03/17/2022				
Neu	rological effects data available							
	Further information No data available							
SECTION	N 12. ECOLOGICAL INFO	DRI	MATION					
Eco	toxicity							
<u>Con</u>	nponents:							
-	[(1-methylethylidene)bis	s (4,	1-phenyleneoxym	ethylene)]bisoxirane:				
Toxi	city to fish	:	LC50 (Oncorhync Exposure time: 96 Method: OECD T					
	city to daphnia and other atic invertebrates	:	EC50 (Daphnia m Exposure time: 48 Test Type: static t Test substance: F Method: OECD T	est resh water				
Toxi plan	city to algae/aquatic ts	:	EC50: 11 mg/l Exposure time: 72 Test Type: static f Test substance: F Method: EPA-660	est resh water				
			NOEC: 4.2 mg/l Exposure time: 72 Test Type: static f Test substance: F Method: EPA-660	est resh water				
aqua	city to daphnia and other atic invertebrates ronic toxicity)	:	NOEC (Daphnia r Exposure time: 2' Test Type: semi-s Test substance: F Method: OECD T	tatic test resh water				
Тохі	city to microorganisms	:	IC50 (activated sl Exposure time: 3 Test Type: static t Test substance: F	h est				

Ecotoxicology Assessment

Chronic aquatic toxicity	: Toxic to aquatic life with long lasting effects.
Glass, oxide, chemicals:	: LC50 (Brachydanio rerio (zebrafish)): > 1,000 mg/l
Toxicity to fish	Exposure time: 96 h

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			Test Type: Other Test substance: F Method: OECD T	Fresh water		
	ity to daphnia and other ic invertebrates	:	EC50 (Daphnia m Exposure time: 72 Test Type: semi-s Test substance: F Method: OECD T	static test Fresh water		
	Toxicity to algae/aquatic plants		EgC50 (Selenastrum capricornutum (green algae)): > 1,000 mg/l Exposure time: 72 h Test Type: semi-static test Method: OECD Test Guideline 201			
2 3-er	ooxypropyl o-tolyl ethe	r-				
-	ity to fish	:	LC50: 13 mg/l Exposure time: 96 Method: OECD T			
			LC50 (Oncorhynd Exposure time: 96 Test Type: static Test substance: F Method: OECD T	test Fresh water		
			LC50 (Brachydan Exposure time: 96 Test Type: static Test substance: F Method: OECD T	test Fresh water		
	ity to daphnia and other ic invertebrates	:	EC50 (Daphnia m Exposure time: 48 Test Type: static Test substance: F Method: OECD T	test Fresh water		
Toxici plants	ity to algae/aquatic	:	EC50 (Selenastru Exposure time: 72 Test Type: static Test substance: F Method: OECD T	test Fresh water		
Toxic	ity to microorganisms	:	IC50: > 100 mg/l Exposure time: 3 Test Type: static Test substance: F Method: OECD T	test Fresh water		
Form	aldehvde, olicomeric r	eac	tion products wit	h 1-chloro-2,3-epoxypropane and phenol:		
	ity to fish	:	LC50 (Fish): 2.54 Exposure time: 96 Method: Calculati	mg/l ∂ h		

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	cicity to daphnia and other atic invertebrates	:	EC50 (Daphnia n Exposure time: 4 Method: Calculat	
To» pla	kicity to algae/aquatic nts	:	Exposure time: 7 Test Type: static Test substance: I	test
aqu	kicity to daphnia and other latic invertebrates lironic toxicity)	:	Exposure time: 2 Test Type: semi- Test substance: I Method: OECD T	static test Fresh water est Guideline 211 ation given is based on data obtained from
То	cicity to microorganisms	:	IC50 (activated s Exposure time: 3 Test Type: static Test substance: I	test
2-0	thyl-2-[[(1-oxoallyl)oxy]n	hoth	vII-1 3-propapedi	vl diacrylate
	kicity to fish	:		idus (Golden orfe)): 1.47 mg/l 6 h test
			Exposure time: 9 Test Type: semi-	
	cicity to daphnia and other atic invertebrates	:	LC50 (Daphnia m Exposure time: 4 Test Type: static Method: Other gu	test
To» pla	kicity to algae/aquatic nts	:	Exposure time: 9 Test Type: static	
			Exposure time: 9 Test Type: static	
То	cicity to microorganisms	:	EC20 (activated s Exposure time: 3 Test Type: static Method: ISO 819	0 min test



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Ecoto	oxicology Assessment			
Acute	aquatic toxicity	:	Very toxic to aq	uatic life.
Chror	nic aquatic toxicity	:	Very toxic to aq	uatic life with long lasting effects.
dimet	hyl methylphosphonat	te:		
Toxici	ity to fish	:	LC50: > 1,000 n Exposure time:	
Toxic	ity to microorganisms	:	IC50: > 300 mg/ Exposure time:	
	oxicology Assessment			
Chror	ic aquatic toxicity	:	Harmful to aqua	tic life with long lasting effects.
Siloxa	anes and Silicones, di-	Me	, 3-hydroxyprop	yl Me, ethoxylated:
Toxic	ity to fish	:	EC50 (Fish): 10 Remarks: Base	- 100 mg/l d on data from similar materials
			mg/l Exposure time:	
			Remarks: Base	d on data from similar materials
			Exposure time:	nchus mykiss (rainbow trout)): 892 mg/l 96 h d on data from similar materials
	Toxicity to daphnia and other			magna (Water flea)): > 1,040 mg/l
aquat	ic invertebrates		Exposure time: Test Type: station Remarks: Based	
				sis bahia (opossum shrimp)): 11 mg/l
			Exposure time: Test Type: station Remarks: Based	
Toxici plants	ity to algae/aquatic	:	Exposure time: Test Type: station	
			Exposure time: Test Type: station	
			Exposure time: Test Type: station	



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Toxic	Toxicity to microorganisms		EC50 (activated sludge): 115 mg/l Exposure time: 3 h Remarks: Based on data from similar materials		
dime	thyl phosphonate:				
Toxic	sity to fish	:	End point: mortali Exposure time: 90 Test Type: static	5 h	
	tity to daphnia and other tic invertebrates	:	 EC50 (Daphnia magna (Water flea)): 24.8 mg/l End point: Immobilization Exposure time: 48 h Test Type: static test Method: Tested according to Directive 92/69/EEC. GLP: yes 		
Toxic plants	sity to algae/aquatic s	:	 EC50 (Desmodesmus subspicatus (green algae)): >= 1 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 GLP: yes 		
Toxic	ity to microorganisms	:	EC50 (activated s Exposure time: 3 Test Type: static Method: OECD T GLP: yes	test	
silico	on dioxide:				
	rity to fish	:	 LL50 (Brachydanio rerio (zebrafish)): > 10,000 mg/l Exposure time: 96 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 202 		
	bity to daphnia and other tic invertebrates	:	EL50 (Daphnia magna (Water flea)): >= 1,000 mg/l Exposure time: 24 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 202		
Toxic plants	sity to algae/aquatic s	:	EL50 (Desmodes mg/l Exposure time: 72 Test Type: static Test substance: F Method: OECD T	test Fresh water	

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melai	mine:			Print Date 03/17/2022	
	Toxicity to fish		LC50 (Oncorhynchus mykiss (rainbow trout)): > 3,000 mg/l Exposure time: 96 h Test Type: semi-static test Test substance: Fresh water		
	Toxicity to daphnia and other aquatic invertebrates		Exposure time: 4 Test Type: static Test substance:	test	
Toxic plants	ity to algae/aquatic s	:	EC50 (Selenastrum capricornutum (green algae)): 325 mg/l Exposure time: 96 h Test Type: static test Test substance: Fresh water		
Toxic toxicit	ity to fish (Chronic ty)	:	NOEC (Oncorhy Exposure time: 2 Test Type: semi- Test substance:	static test	
aquat	ity to daphnia and other tic invertebrates onic toxicity)	:	 NOEC (Daphnia magna (Water flea)): 18 mg/l Exposure time: 21 d Test Type: semi-static test Test substance: Fresh water 		
ethyl	benzene:				
-	Toxicity to fish		LC50: 4.2 mg/l Exposure time: 9	6 h	
			LC50: 9.2 mg/l Exposure time: 9	6 h	
			LC50: 12.1 mg/l Exposure time: 9	6 h	
			LC50: 5.1 mg/l Exposure time: 9	6 h	
	ity to daphnia and other tic invertebrates	:	EC50: 1.81 - 2.3 Exposure time: 4		
Toxic plants	ity to algae/aquatic s	:	IC50: 4.6 mg/l Exposure time: 7	'2 h	
			EC50: 3.6 mg/l Exposure time: 9	6 h	
			NOEC: 3.4 mg/l Exposure time: 9	6 h	
			EC50: 7.7 mg/l Exposure time: 9	6 h	



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Toxicity to fish (Chronic toxicity)	: NOEL: 0.96 mg Exposure time:	
Ecotoxicology Assessment Acute aquatic toxicity		as no known ecotoxicological effects.
Chronic aquatic toxicity	: Harmful to aqu	atic life with long lasting effects.
Persistence and degradabil	ity	
Components:		
2,2'-[(1-methylethylidene)bis		ymethylene)]bisoxirane:
Biodegradability	Concentration: Result: Not rea Biodegradation Exposure time	dily biodegradable. i: 5 %
Stability in water		alf life (DT50): 4.83 d (25 °C) pH: 4) Test Guideline 111 h water
		alf life (DT50): 7.1 d (25 °C) pH: 9) Test Guideline 111 h water
		alf life (DT50): 3.58 d (25 °C) pH: 7 9 Test Guideline 111 h water
2,3-epoxypropyl o-tolyl ethe	er:	
Biodegradability	: Inoculum: activ Concentration: Result: Not rea Biodegradation Exposure time	10 mg/l dily biodegradable. : 17 %
Stability in water		alf life (DT50): 10.5 hrs (25 °C) pH: 4) Test Guideline 111 h water
		alf life (DT50): 9.4 hrs (25 °C) pH: 7) Test Guideline 111 h water
		alf life (DT50): 8.96 hrs (25 °C) pH: 9 9 Test Guideline 111 h water

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Form	aldehyde, oligomeric	reaction products w	Print Date 03/17/2022 vith 1-chloro-2,3-epoxypropane and phenol:
Biode	egradability	: Inoculum: active Concentration: Result: Not biod Biodegradation Exposure time: Method: Directi	3 mg/l degradable : ca. 0 %
2-eth	yl-2-[[(1-oxoallyl)oxy]r	nethyl]-1,3-propane	diyl diacrylate:
Biode	egradability	Biodegradation Exposure time:	33 mg/l biodegradable. : 82 - 90 %
dime	thyl methylphosphona	te:	
Biode	egradability	: Result: Not biod Biodegradation Exposure time: Method: Simula Activated Sludg	: 8 % 21 d ition Test - Aerobic Sewage Treatment. A:
	nemical Oxygen and (BOD)	: 11 mgO2/g Incubation time	: 5 d
Chen (COE	nical Oxygen Demand))	: 895 mgO2/g	
Silox	anes and Silicones, di	-Me, 3-hydroxyprop	yl Me, ethoxylated:
Biode	egradability	Biodegradation Exposure time: Method: OECD	
dime	thyl phosphonate:		
Biode	egradability	: Result: Not read	dily biodegradable.
mela	mine:		
Biode	egradability	Biodegradation Exposure time:	100 mg/l dily biodegradable. : < 10 %
ethyl	benzene:		
-	egradability	: Result: Readily	biodegradable.





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			Biodegradation: Exposure time:		
Bioa	ccumulative potentia	al			
<u>Com</u>	ponents:				
2,2'-[(1-methylethylidene)bis(4,	1-phenyleneoxy	methylene)]bisox	irane:
Bioad	ccumulation	:		n factor (BCF): 31 not bioaccumulate	<u>).</u>
	tion coefficient: n- nol/water	:	log Pow: 3.242 pH: 7.1 Method: OECD	(77 °F / 25 °C) Test Guideline 117	7
2 3-0	poxypropyl o-tolyl e	thor			
-			log Pow: 2.5 (70) °F / 21 °C)	
	nol/water	-		Test Guideline 107	7
Form	naldehyde, oligomer	ic reac	tion products w	ith 1-chloro-2,3-e	poxypropane and phenol:
Bioad	ccumulation	:		n factor (BCF): 150 not bioaccumulate	
	tion coefficient: n- nol/water	:		.6 Test Guideline 11	7
2-eth	yl-2-[[(1-oxoallyl)ox	y]meth	yl]-1,3-propane	diyl diacrylate:	
Partit	tion coefficient: n- nol/water	:	log Pow: 4.35 (6 Method: Calcula	68 °F / 20 °C)	
dime	thyl methylphospho	onate:			
Partit	tion coefficient: n- nol/water		log Pow: -0.61		
dime	thyl phosphonate:				
Partit	tion coefficient: n- nol/water	:	log Pow: -1.13 Method: QSAR GLP: no		
mela	mine:				
	ccumulation	:	Bioconcentratio	n factor (BCF): 0.0	5
	tion coefficient: n- nol/water	:	log Pow: -1.22 (pH: 8	· · · · ·	
			Method: Partitic	on coefficient	
ethvl	lbenzene:				
-	ccumulation	:	Bioconcentratio	n factor (BCF): 1.9	
Partit	tion coefficient: n-	:	log Pow: 3.15		
		-	0		



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ootono	l/watar			Print Date 03/17/2022
Octant	l/water			
Mobili	ty in soil			
<u>Comp</u>	onents:			
2,2'-[(′	l-methylethylidene)bis	s (4,	1-phenyleneoxym	ethylene)]bisoxirane:
	ution among nmental compartments	:	Koc: 445	
2,3-ер	oxypropyl o-tolyl ethe	er:		
	ution among nmental compartments	:	Koc: ca. 210 Method: OECD T	est Guideline 121
Forma	lldehyde, oligomeric r	eac	tion products wit	h 1-chloro-2,3-epoxypropane and phenol:
	ution among	:	Koc: 4460	
enviro	nmental compartments		Method: OECD T	est Guideline 121
2-ethy	l-2-[[(1-oxoallyl)oxy]m	neth	yl]-1,3-propanedi	yl diacrylate:
	ution among	:	OECD Test Guide	eline 121
enviro	nmental compartments		log Koc: 2.2 Method: OECD T	est Guideline 121
melan	nine:			
	ution among nmental compartments	:	Koc: 1.7	
ethylb	enzene:			
	ution among nmental compartments	:	Koc: 520	
Other	adverse effects			
Produ	ct:			
-	-Depletion Potential	:	Protection of Stra Substances	FR Protection of Environment; Part 82 tospheric Ozone - CAA Section 602 Class I
			manufactured wit	oduct neither contains, nor was h a Class I or Class II ODS as defined by the t Section 602 (40 CFR 82, Subpt. A, App.A +
Additic inform	onal ecological ation	:	unprofessional ha	hazard cannot be excluded in the event of andling or disposal. fe with long lasting effects.
<u>Comp</u>	onents:			
	nyl methylphosphonat	te:		
Adsort	ped organic bound ens (AOX)	:	0 %	

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SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods		
Waste from residues	:	Dispose of contents and container in accordance with all local, regional, national and international regulations. Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR				
UN/ID No.	:	UN 3082		
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s. (TRIMETHYLOLPROPANE TRIACRYLATE, BISPHENOL A EPOXY RESIN)		
Class	:	9		
Packing group	:	III		
Labels	:	Miscellaneous		
Packing instruction (cargo aircraft)	:	964		
Packing instruction (passenger aircraft)	:	964		
Environmentally hazardous	:	yes		
IMDG-Code				
UN number	:	UN 3082		
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.		
		(TRIMETHYLOLPROPANE TRIACRYLATE, BISPHENOL A EPOXY RESIN)		
Class	:	9		
Packing group	:	III		
Labels	:	9		
EmS Code	:	F-A, S-F		
Marine pollutant	:	yes		
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code				

Not applicable for product as supplied.

National Regulations

49 CFR		
UN/ID/NA number	:	UN 3082
Proper shipping name	:	Environmentally hazardous substance, liquid, n.o.s.
		(TRIMETHYLOLPROPANE TRIACRYLATE, BISPHENOL A
		ÉPOXY RESIN)
Class	:	9
Packing group	:	
Labels	:	CLASS 9

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Marin	ERG Code : Marine pollutant : Remarks :		Print Date 03/17/2022 ground under DOT is non-regulated; however it ed per the applicable hazard classification to -modal transport involving ICAO (IATA) or IMO.
Spec	ial precautions for u	ser	
Rema	arks	: 49CFR: no da	ngerous good in non-bulk packaging

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.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 311/312 Hazards	:	Respiratory or skin sensitisa Germ cell mutagenicity Carcinogenicity Reproductive toxicity Skin corrosion or irritation Serious eye damage or eye		
SARA 313	:	The following components a established by SARA Title I		rting levels
		ethylbenzene	100-41-4	>= 0.1 - < 1 %

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

California Prop. 65

WARNING: This product can expose you to chemicals including silicon dioxide, ethylbenzene, pyrocatechol, which is/are known to the State of California to cause cancer, and methanol, toluene, 4,4'-isopropylidenediphenol, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

The components of this product are reported in the following inventories:

DSL	: All components of this product are on the Canadian DSL
AIIC	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory
ENCS	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory



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EPOCAST® 1618 D US

Version 2.0	Revision Date: 02/01/2022	SDS Number: 400001009082	Date of last issue: 05/20/2020 Date of first issue: 04/12/2017	
IECSC		Print Date 03/17/2022 : On the inventory, or in compliance with the inventory		
TCSI		: On the inventory, or in compliance with the inventory		
TSCA		: All substances li	sted as active on the TSCA inventory	

Inventories

AIIC (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIOC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TECI (Thailand), TSCA (USA)

TSCA - 5(a) Significant New Use Rule List of Chemicals No substances are subject to a Significant New Use Rule.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

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

SECTION 16. OTHER INFORMATION





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			Print Date 03/17/2022		
NIOSH REL / TWA		 Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek 			
NIOSH REL / ST		: STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday			
OSHA CARC / PEL		: Permissible exposure limit (PEL)			
OSHA P0 / TWA		: 8-hour time weighted average			
OSHA P0 / STEL		: Short-term exposure limit			
OSHA Z-1 / TWA			8-hour time weighted average		
OSHA Z-3 / TWA			8-hour time weighted average		
US WEEL / TWA		: 8-hr TWA	: 8-hr TWA		

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THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

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