

Version 2.0	Revision Date: 29.08.2016		Number: 33-00002	Date of last issue: 02.08.2016 Date of first issue: 02.08.2016
SECTION	N 1. PRODUCT AND C	OMPAN		ATION
Proc	luct name	: P	URLOGIC T	OP 1K FOAM-CONST.GREY
Proc	luct code	: 0	892 142	
Man	ufacturer or supplier's	s details		
Corr	ipany	: V	/urth Australi	a Pty Ltd
Add	ress		/1 Healey Ro andenong So	ad outh, Victoria, 3175
Tele	phone	: +	61 3 8788 11	11
Eme	ergency telephone numb		300 657 765. oisons Cent	Advisory office in case of poisoning - National re: 131 126
E-m	ail address	: р	rodsafe@wu	erth.com
Rec	ommended use of the	chemica	al and restric	ctions on use

Recommended use : Adhesives and/or sealants

### SECTION 2. HAZARDS IDENTIFICATION

GHS Classification		
Flammable aerosols	:	Category 1
Gases under pressure	:	Dissolved gas
Acute toxicity (Inhalation)	:	Category 4
Skin corrosion/irritation	:	Category 2
Respiratory sensitisation	:	Category 1
Skin sensitisation	:	Category 1
Carcinogenicity	:	Category 2
Specific target organ toxicity - single exposure	:	Category 3
Specific target organ toxicity - repeated exposure (Inhalation)	:	Category 2 (Respiratory system)

### **GHS** label elements



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Hazaı	rd pictograms		
Signa	l word	: Danger	· · · ·
Hazaı	rd statements	H280 Contain H315 Causes H317 May cau H332 Harmful H334 May cau difficulties if in H335 May cau H336 May cau H351 Suspec H373 May cau	use an allergic skin reaction. if inhaled. use allergy or asthma symptoms or breathing
Preca	autionary statements	· Prevention:	
		P202 Do not H and understoo P210 Keep av No smoking. P211 Do not s P251 Pressur use. P260 Do not H P271 Use onl P272 Contam the workplace P280 Wear pr P281 Use per P285 In case tion.	way from heat/sparks/open flames/hot surfaces. spray on an open flame or other ignition source. ized container: Do not pierce or burn, even after preathe spray. y outdoors or in a well-ventilated area. inated work clothing should not be allowed out o
		P304 + P340 and keep at re POISON CEN P308 + P313 attention. P333 + P313 vice/ attention	IF ON SKIN: Wash with plenty of soap and wate + P312 IF INHALED: Remove victim to fresh air est in a position comfortable for breathing. Call a ITER or doctor/ physician if you feel unwell. IF exposed or concerned: Get medical advice/ If skin irritation or rash occurs: Get medical ad-
			cked up. Protect from sunlight. Do not expose to tempera ng 50 °C/ 122 °F.
		Disposal:	of contents/ container to an approved waste



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disposal plant.

#### Other hazards which do not result in classification

May displace oxygen and cause rapid suffocation.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

#### Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Diphenylmethane diisocyanate, isomers and	9016-87-9	>= 30 - < 60
homologues		
tris(2-chloro-1-methylethyl) phosphate	13674-84-5	>= 10 - < 30
Dimethyl ether	115-10-6	>= 10 - < 30
Isobutane	75-28-5	< 10
Propane	74-98-6	< 10
4,4'-Diphenylmethane diisocyanate	101-68-8	< 10

#### SECTION 4. FIRST AID MEASURES

General advice	:	In the case of accident or if you feel unwell, seek medical ad- vice immediately. When symptoms persist or in all cases of doubt seek medical advice.
If inhaled	:	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
In case of skin contact	:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
In case of eye contact	:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention.
If swallowed	:	If swallowed, DO NOT induce vomiting. Get medical attention. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	:	Causes skin irritation. May cause an allergic skin reaction. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficul- ties if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness.



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				Suspected of cause May cause damage exposure if inhale	ge to organs through prolonged or repeated		
Ρ	Protection of first-aiders			First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.			
Ν	lotes to	o physician	:	Treat symptomation	cally and supportively.		
SECTI	ION 5.	FIREFIGHTING MEA	SUI	RES			
S	Suitable	e extinguishing media	:	Water spray Alcohol-resistant f Carbon dioxide (C Dry chemical			
	Insuita nedia	ble extinguishing	:	None known.			
	pecific ghting	hazards during fire-	:	Vapours may form Exposure to comb	ble over considerable distance. In explosive mixtures with air. Dustion products may be a hazard to health. I rises there is danger of the vessels bursting upor pressure.		
	lazardo cts	ous combustion prod-	:	Carbon oxides Oxides of phosph Chlorine compour Silicon oxides Nitrogen oxides (N Isocyanates Hydrogen cyanide	nds		
	pecific ds	extinguishing meth-	:	cumstances and t Use water spray t	measures that are appropriate to local cir- he surrounding environment. o cool unopened containers. ged containers from fire area if it is safe to do		
	pecial or firefi	protective equipment ghters	:	In the event of fire Use personal prot	e, wear self-contained breathing apparatus. ective equipment.		
Н	lazche	m Code	:	2YE			

### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec-	l	Remove all sources of ignition. Use personal protective equipment. Follow safe handling advice and personal protective equip- ment recommendations.
Environmental precautions	I	Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil



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			se of contaminated wash water. should be advised if significant spillages ned.
	ods and materials for inment and cleaning up	Soak up with ine Suppress (knock spray jet. For large spills, p ment to keep ma be pumped, store Clean up remain bent. Local or national posal of this mate employed in the mine which regul Sections 13 and	ols should be used. rt absorbent material. down) gases/vapours/mists with a water provide dyking or other appropriate contain- terial from spreading. If dyked material can e recovered material in appropriate container. ing materials from spill with suitable absor- regulations may apply to releases and dis- erial, as well as those materials and items cleanup of releases. You will need to deter- lations are applicable. 15 of this SDS provide information regarding ational requirements.

#### SECTION 7. HANDLING AND STORAGE

Technical measures	:	See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	:	Use with local exhaust ventilation. Use only in an area equipped with explosion proof exhaust ventilation.
Advice on safe handling	:	Do not get on skin or clothing. Do not breathe vapours or spray mist. Do not swallow. Do not get in eyes. Handle in accordance with good industrial hygiene and safety practice. Keep container tightly closed. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment.
Hygiene measures	:	Ensure that eye flushing systems and safety showers are located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.
Conditions for safe storage	:	Store locked up. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Do not pierce or burn, even after use. Keep cool. Protect from sunlight.
Materials to avoid	:	Do not store with the following product types: Self-reactive substances and mixtures



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		Organic peroxi Oxidizing ager Flammable liqu	nts		
Pyrophoric liquids Pvrophoric solids					

Explosives

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
Diphenylmethane diisocya- nate, isomers and homologues	9016-87-9	TWA	0.02 mg/m3 (NCO)	AU OEL
	Further informa	ation: Sensitiser		
		STEL	0.07 mg/m3 (NCO)	AU OEL
	Further informa	ation: Sensitiser		
Dimethyl ether	115-10-6	TWA	400 ppm 760 mg/m3	AU OEL
		STEL	500 ppm 950 mg/m3	AU OEL
Isobutane	75-28-5	STEL	1,000 ppm	ACGIH
4,4'-Diphenylmethane diisocy- anate	101-68-8	TWA	0.02 mg/m3 (NCO)	AU OEL
	Further information: Category 2 (Carc. 2) Suspected human ca			l human car-
		STEL	0.07 mg/m3 (NCO)	AU OEL
	Further informa cinogen, Sensi		2 (Carc. 2) Suspected	l human car-
	-	TWA	0.005 ppm	ACGIH

Self-heating substances and mixtures

#### Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
Formaldehyde	50-00-0	TWA	1 ppm 1.2 mg/m3	AU OEL
	Further inform cinogen, Sens	• •	2 (Carc. 2) Suspected	d human car-
		STEL	2 ppm 2.5 mg/m3	AU OEL
	Further inform cinogen, Sens	• •	2 (Carc. 2) Suspected	d human car-
		С	0.3 ppm	ACGIH
Methanol	67-56-1	STEL	250 ppm 328 mg/m3	AU OEL
	Further inform	ation: Skin abso	rption	
		TWA	200 ppm	AU OEL



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					262 mg/m3	
			Further informa	ation: Skin a		
				TWA	200 ppm	ACGIH
				STEL	250 ppm	ACGIH
Engir	neering measures	:	10). Minimize work	place expos area equip	ardous compounds (s sure concentrations. ped with explosion pro ntilation.	
Perso	onal protective equip	ment				
	iratory protection	:	Use respirator ventilation is p	rovided or e	unless adequate loca exposure assessment recommended exposi	demonstrates
Fil	ter type	:	Self-contained	l breathing a	apparatus	
Ma Br	protection aterial eak through time ove thickness	:	Polyethylene > 30 min 0.025 mm			
Re	emarks	:	on the concent stance and sp we recomment aforementione	tration and ecific to pland d clarifying ad protective	hands against chemic quantity of the hazard ce of work. For specia the resistance to chen gloves with the glove eaks and at the end o	ous sub- I applications, nicals of the manufactur-
Eye p	protection	:	Wear the follo Safety goggle		nal protective equipme	ent:
Skin a	and body protection	:	resistance dat potential. Wear the follo Flame retarda	a and an as wing persor nt antistatic nust be avoi	tive clothing based on esessment of the local nal protective equipme protective clothing. ded by using impervice poots, etc).	exposure ent:

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	aerosol
Colour	:	grey
Odour	:	characteristic
Odour Threshold	:	No data available
рН	:	No data available



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	Meltin	g point/freezing point	:	No data available	)
	Initial range	boiling point and boiling	:	No data available	
	Flash	point	:	Not applicable	
	Evapo	oration rate	:	Not applicable	
	Flamn	nability (solid, gas)	:	Extremely flamm	able aerosol.
	Self-ig	gnition	:	not auto-flammab	le
	Upper	explosion limit	:	No data available	)
	Lower	explosion limit	:	No data available	
	Vapoι	ır pressure	:	Not applicable	
	Relati	ve vapour density	:	Not applicable	
	Relati	ve density	:	No data available	9
	Densi	ty	:	No data available	)
		ility(ies) ater solubility	:	insoluble	
		on coefficient: n- ol/water	:	Not applicable	
	Auto-i	gnition temperature	:	199 °C	
	Decor	mposition temperature	:	No data available	9
	Viscos Vis	sity cosity, dynamic	:	Not applicable	
	Explo	sive properties	:	Not explosive	
	Oxidiz	ring properties	:	The substance of	r mixture is not classified as oxidizing.

### SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reac- tions	:	Extremely flammable aerosol. Vapours may form explosive mixture with air. If the temperature rises there is danger of the vessels bursting due to the high vapor pressure. Can react with strong oxidizing agents. Hazardous decomposition products will be formed at elevated



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		tempera	itures.
Condit	tions to avoid	: Heat, fla	ames and sparks.
Incom	patible materials	: Oxidizin	g agents
	dous decompositio al decomposition	n products : Formalo Methano	
	11. TOXICOLOGICA		N
Expos	ure routes	: Inhalatio Skin con Ingestior Eye cont	tact
	<b>toxicity</b> ul if inhaled.		
<u>Produ</u>	ict:		
Acute	oral toxicity		kicity estimate: > 2,000 mg/kg Calculation method
Acute	inhalation toxicity	Exposure Test atm	kicity estimate: 3.39 mg/l e time: 4 h osphere: dust/mist Calculation method
<u>Comp</u>	onents:		
Diphe	nylmethane diisocy	anate, isomers	and homologues:
Acute	oral toxicity	: LD50 (R	at): > 5,000 mg/kg
Acute	inhalation toxicity	Exposure Test atm	at): > 2.24 mg/l e time: 1 h osphere: dust/mist OECD Test Guideline 403
Acute	dermal toxicity		abbit): > 2,000 mg/kg nent: The substance or mixture has no acute derm
	chloro-1-methyleth	yl) phosphate:	
Acute	oral toxicity	: LD50 (R	at): 1,101 mg/kg
Acute	inhalation toxicity	Exposure	at): > 7 mg/l e time: 4 h osphere: dust/mist
Acute	dermal toxicity	Method:	abbit): > 2,000 mg/kg OECD Test Guideline 402 nent: The substance or mixture has no acute derm



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		toxicity	
II Dime	ethyl ether:		
	e inhalation toxicity	: LC50 (Rat): Exposure tii Test atmosp	me: 4 h
Isobu	utane:		
Acute	e inhalation toxicity	: LC50 (Mous Exposure tii Test atmosp	
Prop	ane:		
Acute	e inhalation toxicity	: LC50 (Rat): Exposure tii Test atmosp	
4,4'-[	Diphenylmethane diis	socyanate:	
Acute	e oral toxicity	Assessmen icity	> 2,000 mg/kg t: The substance or mixture has no acute oral tox- cased on data from similar materials
Acute	e inhalation toxicity		
Acute	e dermal toxicity		pit): > 5,000 mg/kg based on data from similar materials
II Skin	corrosion/irritation		
	es skin irritation.		
Com	ponents:		
	enylmethane diisocy	anate isomers an	d homologues.
Spec	ies: Rabbit It: Skin irritation		
tris(2	-chloro-1-methyleth	yl) phosphate:	
Spec Meth	ies: Rabbit od: OECD Test Guide lt: No skin irritation		
4,4'-[	Diphenylmethane diis	socyanate:	
Spec	ies: Rabbit od: OECD Test Guide	-	

Method: OECD Test Guideline 404 Result: Skin irritation Remarks: Based on data from similar materials



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	ous eye damage/eye		
Not c	lassified based on ava	ailable information.	
<u>Com</u>	ponents:		
	enylmethane diisocy It: Irritation to eyes, re	vanate, isomers and h versing within 7 days	omologues:
tris(2	-chloro-1-methyleth	yl) phosphate:	
Resu	ies: Rabbit lt: No eye irritation od: OECD Test Guide	line 405	
Resu Rema		versing within 7 days nised classification in E	EU regulation 1272/2008, Annex VI
Resp	iratory or skin sensi	tisation	
-	<b>sensitisation</b> cause an allergic skin	reaction.	
Resp	iratory sensitisation		
Mayo	cause allergy or asthn	na symptoms or breath	ing difficulties if inhaled.
Com	ponents:		
Diph	enylmethane diisocy	vanate, isomers and h	omologues:
	Type: Buehler Test sure routes: Skin cont	act	
Spec	ies: Guinea pig		
	lt: positive arks: Based on data fr	om similar materials	
		evidence of skin sensi	tisation in humans
Spec	sure routes: inhalatior ies: Rat lt: positive	n (dust/mist/fume)	
Asse	ssment: Probability of	respiratory sensitisatio	n in humans based on animal testing
tris(2	-chloro-1-methyleth	yl) phosphate:	
	Type: Local lymph noo sure routes: Skin cont		
Speci	ies: Mouse		
	od: OECD Test Guide	line 429	
Resu	lt: negative		
 4,4'-C	Diphenylmethane diis	socyanate:	
	Type: Buehler Test	-	
	ouro routoo: Skin oont	ant	

Test Type: Buehler Test Exposure routes: Skin contact Species: Guinea pig Result: positive



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Assessment: Probability or evidence of skin sensitisation in humans

Exposure routes: Inhalation Species: Rat Result: positive Remarks: Based on data from similar materials

Assessment: Probability of respiratory sensitisation in humans based on animal testing

#### Chronic toxicity

#### Germ cell mutagenicity

Not classified based on available information.

#### Components:

#### Diphenylmethane diisocyanate, isomers and homologues:

Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Result: negative
Genotoxicity in vivo	<ul> <li>Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)</li> <li>Species: Rat</li> <li>Application Route: inhalation (dust/mist/fume)</li> <li>Method: OECD Test Guideline 474</li> <li>Result: negative</li> </ul>

### tris(2-chloro-1-methylethyl) phosphate:

Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative
Genotoxicity in vivo	: Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis) Species: Rat Application Route: Ingestion Result: negative

#### **Dimethyl ether:**

Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative
Genotoxicity in vivo	<ul> <li>Test Type: Sex-linked recessive lethal test in Drosophila mel- anogaster (in vivo)</li> <li>Application Route: inhalation (gas)</li> <li>Method: OECD Test Guideline 477</li> <li>Result: negative</li> </ul>
Isobutane:	· Test Type: Chromosome aberration test in vitro

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro Method: OECD Test Guideline 473 Result: negative



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		Rei	marks: Based (	on data from similar materials	
Genotoxicity in vivo		cyte Spe App Me Res	<ul> <li>Test Type: Mammalian erythrocyte micronucleus test (in v cytogenetic assay)</li> <li>Species: Rat</li> <li>Application Route: inhalation (gas)</li> <li>Method: OECD Test Guideline 474</li> <li>Result: negative</li> <li>Remarks: Based on data from similar materials</li> </ul>		
Propa	ne:				
Genote	oxicity in vitro		st Type: Bacter sult: negative	ial reverse mutation assay (AMES)	
Genotoxicity in vivo		cyte Spe App Me	Test Type: Mammalian erythrocyte micronucleus test (in cytogenetic assay) Species: Rat Application Route: inhalation (gas) Method: OECD Test Guideline 474 Result: negative		
4,4'-Di	phenylmethane diis	ocyanate	:		
Genote	oxicity in vitro		st Type: Bacter sult: negative	ial reverse mutation assay (AMES)	
Genoto	oxicity in vivo	cyte	st Type: Mamm ogenetic assay ecies: Rat	nalian erythrocyte micronucleus test (in vivo	

Application Route: inhalation (dust/mist/fume)

Method: OECD Test Guideline 474

# Carcinogenicity

Suspected of causing cancer.

#### **Components:**

#### Diphenylmethane diisocyanate, isomers and homologues:

Species: Rat Application Route: inhalation (dust/mist/fume) Exposure time: 2 Years Result: positive

Carcinogenicity - Assess- : Limited evidence of carcinogenicity in animal studies ment

**Result:** negative

#### Dimethyl ether:

Species: Rat Application Route: inhalation (vapour) Exposure time: 2 Years Method: OECD Test Guideline 453 Result: negative



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Speci Applie	Diphenylmethane diiso ies: Rat cation Route: inhalation	-		
Resu	sure time: 2 Years lt: positive arks: Based on data froi	m sin	nilar materials	
Carci ment	nogenicity - Assess-	:	Limited evide	nce of carcinogenicity in animal studies
Not c	oductive toxicity lassified based on avail ponents:	lable	information.	
	enylmethane diisocya ts on foetal develop-	nate		-
ment	is on locial develop-	·	Species: Rat	mbryo-foetal development oute: inhalation (dust/mist/fume) tive
tris(2	-chloro-1-methylethyl	) pha	osphate:	
	ts on fertility	:	Test Type: T Species: Rat Application R	wo-generation reproduction toxicity study oute: Ingestion CD Test Guideline 416 tive
ment	ts on foetal develop-	:	Species: Rat Application R	mbryo-foetal development oute: Ingestion DD Test Guideline 414 tive
II Dime	thyl ether:			
	ts on foetal develop-	:	Species: Rat Application R	mbryo-foetal development oute: inhalation (vapour) CD Test Guideline 414 tive
Isobi	itane:			
	ts on fertility	:	reproduction/ Species: Rat Application R	ombined repeated dose toxicity study with the developmental toxicity screening test coute: Inhalation CD Test Guideline 422 tive
Effect ment	ts on foetal develop-	:	reproduction/ Species: Rat	ombined repeated dose toxicity study with the developmental toxicity screening test coute: inhalation (gas)
			14 /	22
			14/	



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		Method: OE0 Result: nega	CD Test Guideline 422 tive	
Propar	ne:			
Effects	on fertility	reproduction Species: Rat Application F	Route: inhalation (gas) CD Test Guideline 422	
Effects ment	on foetal develop-	reproduction Species: Rat Application F	Route: inhalation (gas) CD Test Guideline 422	
4,4'-Di	phenylmethane diis	ocyanate:		
Effects ment	Effects on foetal develop-		Test Type: Embryo-foetal development Species: Rat Application Route: inhalation (dust/mist/fume) Result: negative Remarks: Based on data from similar materials	
STOT	- single exposure			
May ca	use respiratory irritat			
Compo	onents:			
Dipher	nylmethane diisocya	anate, isomers and	homologues:	

Assessment: May cause respiratory irritation.

#### Dimethyl ether:

Assessment: May cause drowsiness or dizziness.

#### Isobutane:

Assessment: May cause drowsiness or dizziness.

#### Propane:

Assessment: May cause drowsiness or dizziness.

#### 4,4'-Diphenylmethane diisocyanate:

Assessment: May cause respiratory irritation.

#### STOT - repeated exposure

May cause damage to organs (Respiratory system) through prolonged or repeated exposure if inhaled.



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#### Components:

#### Diphenylmethane diisocyanate, isomers and homologues:

Exposure routes: inhalation (dust/mist/fume)

Target Organs: Respiratory system

Assessment: Shown to produce significant health effects in animals at concentrations of >0.02 to 0.2 mg/l/6h/d.

#### tris(2-chloro-1-methylethyl) phosphate:

Exposure routes: Ingestion Assessment: No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

#### 4,4'-Diphenylmethane diisocyanate:

Exposure routes: inhalation (dust/mist/fume) Target Organs: Respiratory system Assessment: Shown to produce significant health effects in animals at concentrations of >0.02 to 0.2 mg/l/6h/d.

#### Repeated dose toxicity

#### **Components:**

#### Diphenylmethane diisocyanate, isomers and homologues:

Species: Rat NOAEL: 1.4 mg/m3 LOAEL: 4.1 mg/m3 Application Route: inhalation (dust/mist/fume) Exposure time: 13 Weeks

#### tris(2-chloro-1-methylethyl) phosphate:

Species: Rat LOAEL: 52 mg/kg Application Route: Ingestion Exposure time: 90 Days Method: OECD Test Guideline 408

#### Isobutane:

Species: Rat NOAEL: 9000 ppm Application Route: inhalation (gas) Exposure time: 6 Weeks Method: OECD Test Guideline 422

#### Propane:

Species: Rat NOAEL: 7.214 mg/l Application Route: inhalation (gas) Exposure time: 6 Weeks Method: OECD Test Guideline 422



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### 4,4'-Diphenylmethane diisocyanate:

Species: Rat NOAEL: 0,2 mg/m3 LOAEL: 1 mg/m3 Application Route: inhalation (dust/mist/fume) Exposure time: 2 yr Remarks: Based on data from similar materials

#### Aspiration toxicity

Not classified based on available information.

### **SECTION 12. ECOLOGICAL INFORMATION**

#### Ecotoxicity

#### **Components:**

#### Diphenylmethane diisocyanate, isomers and homologues:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): > 1,000 mg/l Exposure time: 96 h
Toxicity to algae	:	ErC50 (Desmodesmus subspicatus (green algae)): > 1,640 mg/l Exposure time: 72 h
Toxicity to daphnia and other aquatic invertebrates (Chron- ic toxicity)	:	NOEC (Daphnia magna (Water flea)): > 10 mg/l Exposure time: 21 d

#### tris(2-chloro-1-methylethyl) phosphate:

Toxicity to fish :	LC50 (Pimephales promelas (fathead minnow)): 51 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other : aquatic invertebrates	EC50 (Daphnia magna (Water flea)): 131 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae :	EC50 (Pseudokirchneriella subcapitata (green algae)): 82 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
	NOEC (Pseudokirchneriella subcapitata (green algae)): 13 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to daphnia and other : aquatic invertebrates (Chron- ic toxicity)	NOEC (Daphnia magna (Water flea)): 32 mg/l Exposure time: 21 d Method: OECD Test Guideline 211
Toxicity to microorganisms :	EC50: 784 mg/l Exposure time: 30 min Method: ISO 8192



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11					
Dime	thyl ether:				
Toxici	ty to fish	:	LC50 (Poecilia reticulata (guppy)): > 4.1 g/l Exposure time: 96 h		
	ty to daphnia and other ic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 4.4 g/l Exposure time: 48 h		
Toxici	ty to microorganisms	:	EC10 (Pseudo	monas putida): > 1,600 mg/l	
4,4'-D	iphenylmethane diisoo	ya	nate:		
Toxicity to fish		:	Exposure time:	latipes (Orange-red killifish)): > 3,000 mg/l : 96 h ed on data from similar materials	
	ty to daphnia and other ic invertebrates	:	Exposure time	a magna (Water flea)): 129.7 mg/l : 24 h 9 Test Guideline 202	
Toxicity to algae		:	mg/l Exposure time Method: OECD	desmus subspicatus (green algae)): > 1,640 : 72 h 9 Test Guideline 201 ed on data from similar materials	
			Exposure time Method: OECD	odesmus subspicatus (green algae)): 1,640 mg : 72 h ) Test Guideline 201 ed on data from similar materials	
	ty to daphnia and other ic invertebrates (Chron- city)	:	<ul> <li>NOEC (Daphnia magna (Water flea)): 10 mg/l Exposure time: 21 d Method: OECD Test Guideline 211 Remarks: Based on data from similar materials</li> </ul>		
Toxici	ty to microorganisms	:			
II Persi:	stence and degradabili	ty			
	oonents:	-			

Diplienyimethane disocyanate, isomers and homologues.	
Biodegradability : Result: Not readily biodegradabl Biodegradation: 0 % Exposure time: 28 d	le.

### tris(2-chloro-1-methylethyl) phosphate:

Biodegradability	: Result: Not readily biodegradable. Biodegradation: 0 % Exposure time: > 28 d
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Dime	thyl ether:			
	gradability	:	Result: Not readil Biodegradation: 4 Exposure time: 28 Method: OECD T	5 %
Isobu	tane:			
Biode	gradability	:	Result: Readily bi Biodegradation: Exposure time: 38 Remarks: Based	100 %
Propa	ane:			
	gradability	:	Result: Readily bi Biodegradation: Exposure time: 38 Remarks: Based	100 %
4,4'-D	piphenylmethane diiso	суа	nate:	
Biode	gradability	:	Result: Not readil Biodegradation: ( Exposure time: 28 Method: OECD T Remarks: Based	0 % 8 d
Bioad	cumulative potential			
Comp	oonents:			
tris(2-	-chloro-1-methylethyl)	ph	osphate:	
Bioac	cumulation	:		factor (BCF): 0.8 - 2.8 est Guideline 305C
	on coefficient: n- ol/water	:	log Pow: 2.68	
Dime	thyl ether:			
	on coefficient: n- ol/water	:	log Pow: 0.2	
Isobu	tane:			
	on coefficient: n- ol/water	:	log Pow: 2.8	
4,4'-D	iphenylmethane diiso	суа	nate:	
Bioac	cumulation	:	Species: Cyprinus Bioconcentration	
	on coefficient: n- ol/water	:	log Pow: 4.51	



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II					
	lity in soil				
No da	ata available				
Othe	r adverse effects				
No da	ata available				
SECTION	13. DISPOSAL CONS	SIDE	RATIONS		
Disp	osal methods				
Wast	e from residues	:	Dispose of in acc	cordance with local regulations.	
Conta	aminated packaging	:	<ul> <li>Empty containers should be taken to an approved waste ha dling site for recycling or disposal.</li> <li>Empty containers retain residue and can be dangerous.</li> <li>Do not pressurize, cut, weld, braze, solder, drill, grind, or ex pose such containers to heat, flame, sparks, or other source of ignition. They may explode and cause injury and/or death If not otherwise specified: Dispose of as unused product.</li> <li>Please ensure aerosol cans are sprayed completely empty (including propellant)</li> </ul>		

#### **SECTION 14. TRANSPORT INFORMATION**

### International Regulations

UN number Proper shipping name Class Packing group Labels	:	UN 1950 AEROSOLS 2.1 Not assigned by regulation 2.1
IATA-DGR UN/ID No. Proper shipping name Class Packing group Labels Packing instruction (cargo aircraft) Packing instruction (passen- ger aircraft)		UN 1950 Aerosols, flammable 2.1 Not assigned by regulation Flammable Gas 203
<b>IMDG-Code</b> UN number Proper shipping name	:	UN 1950 AEROSOLS
Class Packing group Labels EmS Code Marine pollutant	:	2.1 Not assigned by regulation 2.1 F-D, S-U no



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

Not applicable for product as supplied.

### **National Regulations**

ADG UN number Proper shipping name Class Packing group Labels	: UN 1950 : AEROSOLS : 2.1 : Not assigned by regulation : 2.1
Hazchem Code	: 2YE

### SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

: No poison schedule number allocated

Prohibition/Licensing Requirements

: There is no applicable prohibition or notification/licensing requirements, including for carcinogens under Commonwealth, State or Territory legislation.

The components of this product are reported in the following inventories:AICS:All ingredients listed or exempt.

#### **SECTION 16. OTHER INFORMATION**

#### Further information

Sources of key data used to :	Internal technical data, data from raw material SDSs, OECD
compile the Safety Data	eChem Portal search results and European Chemicals Agen-
Sheet	cy, http://echa.europa.eu/

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Date format : dd.mm.yyyy

### Full text of other abbreviations

ACGIH :	USA. ACGIH Threshold Limit Values (TLV)
AU OEL :	Australia. Workplace Exposure Standards for Airborne Con-
	taminants.
ACGIH / TWA :	8-hour, time-weighted average
ACGIH / STEL :	Short-term exposure limit
ACGIH / C :	Ceiling limit
AU OEL / TWA :	Exposure standard - time weighted average
AU OEL / STEL :	Exposure standard - short term exposure limit



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

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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