

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Date of last issue: -Revision Date: 23.02.2021

Version 1.0

Print Date 23.02.2021

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : TriCast 50 16I562O Epoxy Resin System Part A TriCast 10 Epoxy Resin System Part A

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product use

: Tooling system

1.3 Details of the supplier of the safety data sheet

Company name of supplier:	Tricel Composites (GB) Limited Unit A, Fox Way, Off Atkinson Street, Leeds, West Yorkshire, LS10 1PS,
Telephone	United Kingdom.
E-mail address of person responsible for the SDS	+44 (0) 113 270 3133 sales@tricelcomposites.co.uk

1.4 Emergency telephone number

+44 (0) 113 270 3133 (available during office hours).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Long-term (chronic) aquatic hazard, Cat-	H411: Toxic to aquatic life with long lasting effects.
egory 2	

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)						
Hazard pictograms	:		¥2			
Signal word	:	Warning	•			
Hazard statements	:	H315 H317 H319 H411	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.			
Precautionary statements	:	Prevention: P261	Avoid breathing dust/ fume/ gas/ mist/ va-			

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	P264 P273 P280	pours/ spray. Wash skin thoroughly after h Avoid release to the environ Wear protective gloves/ eye protection.	ment.
	Response:		
	P333 + P313	If skin irritation or rash occur advice/ attention.	s: Get medical
	P391	Collect spillage.	

Hazardous components which must be listed on the label:

bis-[4-(2,3-epoxipropoxi)phenyl]propane oxirane, mono[(C12-14-alkyloxy)methyl] derivs. Pentamethyl piperidylsebacate

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Registration number		x <i>y</i>
bis-[4-(2,3- epoxipropoxi)phenyl]propane	1675-54-3 216-823-5 01-2119456619-26- XXXX	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Chronic 2; H411 specific concentration limit Eye Irrit. 2; H319 >= 5 % Skin Irrit. 2; H315 >= 5 %	>= 60 - < 80

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oxirane, mono[(C12-14- alkyloxy)methyl] derivs.	68609-97-2 271-846-8 01-2119485289-22- XXXX	Skin Irrit. 2; H315 Skin Sens. 1; H317	>= 10 - < 20
Pentamethyl piperidylsebacate Contains: bis(1,2,2,6,6-pentamethyl-4- piperidyl) sebacate methyl 1,2,2,6,6-pentamethyl-4- piperidyl sebacate	1065336-91-5 915-687-0 01-2119491304-40- XXXX	Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	>= 0,025 - < 0,1

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

	General advice	:	Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.
	If inhaled	:	Move to fresh air. Consult a physician after significant exposure.
	In case of skin contact	:	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. If symptoms persist, call a physician.
	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	:	Do not induce vomiting without medical advice. Rinse mouth with water. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person.
4.2	Most important symptoms an	d e	ffects, both acute and delayed
	Symptoms	:	Allergic reactions Excessive lachrymation Erythema Dermatitis See Section 11 for more detailed information on health effects and symptoms.
	Risks	:	irritant effects

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Date of last issue: -Version 1.0 Print Date 23.02.2021 Revision Date: 23.02.2021 sensitising effects Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. 4.3 Indication of any immediate medical attention and special treatment needed Treatment : Treat symptomatically. **SECTION 5: Firefighting measures** 5.1 Extinguishing media Suitable extinguishing media : In case of fire, use water/water spray/water jet/carbon dioxide/sand/foam/alcohol resistant foam/chemical powder for extinction. 5.2 Special hazards arising from the substance or mixture Specific hazards during fire-: Do not allow run-off from fire fighting to enter drains or water fighting courses. Hazardous combustion prod- : No hazardous combustion products are known ucts 5.3 Advice for firefighters Special protective equipment : In the event of fire, wear self-contained breathing apparatus. for firefighters 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. **SECTION 6: Accidental release measures** 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Personal precautions : Deny access to unprotected persons. 6.2 Environmental precautions Environmental precautions • Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel,
		acid binder, universal binder, sawdust).

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Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

	Advice on safe handling	:	Do not breathe vapours or spray mist. Avoid exceeding the given occupational exposure limits (see section 8). Do not get in eyes, on skin, or on clothing. For personal protection see section 8. Persons with a history of skin sensitisation problems or asth- ma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Smoking, eating and drinking should be prohibited in the ap- plication area. Follow standard hygiene measures when handling chemical products
	Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
	Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.
7.2	Conditions for safe storage, i	ncl	uding any incompatibilities
	Requirements for storage areas and containers	:	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully re- sealed and kept upright to prevent leakage. Store in accord- ance with local regulations.
	Further information on stor- age stability	:	No decomposition if stored and applied as directed.

7.3 Specific end use(s)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Personal protective equipme	nt	
Eye protection	:	Safety glasses with side-shields conforming to EN166
		Eye wash bottle with pure water
Hand protection	:	Chemical-resistant, impervious gloves complying with an ap-

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		proved standard must be worn at all times chemical products. Reference number EN facturer specifications.	3
		Suitable for short time use or protection a Butyl rubber/nitrile rubber gloves (> 0,1 m Contaminated gloves should be removed Suitable for permanent exposure: Viton gloves (0.4 mm), preakthrough time >30 min.	im)
Skin and body protection Respiratory protection	:	Protective clothing (e.g. Safety shoes acc ong-sleeved working clothing, long trouse and protective boots are additionaly recor and stirring work. No special measures required.	ers). Rubber aprons
Environmental exposure of			
General advice	:	Do not flush into surface water or sanitary If the product contaminates rivers and lak respective authorities.	

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state Colour Odour Odour Threshold	:	liquid colourless slight No data available
рН	:	Not applicable
Melting point/range / Freezing	:	No data available
point Boiling point/boiling range	:	No data available
Flash point	:	> 110 °C Method: closed cup
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	0,01 hPa
Relative vapour density	:	No data available

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Density	:	1,12 g/cm3 (20 °C)
Solubility(ies) Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-	:	No data available
octanol/water Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.

10.4 Conditions to avoid

Conditions to avoid	: No data available

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

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SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Not classified based on available information.

Components:

bis-[4-(2,3-epoxipropoxi)phenyl]propane:							
Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg							
Acute dermal toxicity : LD50 Dermal (Rabbit): > 5.000 mg/kg							
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.:							
Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg							
Pentamethyl piperidylsebacate:							
Acute oral toxicity : LD50 Oral (Rat): 3.230 mg/kg							
Skin corrosion/irritation							
Causes skin irritation.							
Serious eye damage/eye irritation							
Causes serious eye irritation.							
Respiratory or skin sensitisation							
Skin sensitisation							
May cause an allergic skin reaction.							
Respiratory sensitisation							
Not classified based on available information.							
Germ cell mutagenicity							
Not classified based on available information.							
Carcinogenicity							
Not classified based on available information.							
Reproductive toxicity							
Not classified based on available information.							
STOT - single exposure							
Not classified based on available information.							
STOT - repeated exposure							
Not classified based on available information.							
Aspiration toxicity							
Not classified based on available information.							

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11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

Components:

bis-[4-(2,3-epoxipropoxi)phenyl]propane:

Toxicity to fish :	LC50 (Oncorhynchus mykiss (rainbow trout)): 2 mg/l Exposure time: 96 h					
Toxicity to daphnia and other : aquatic invertebrates	EC50 (Daphnia magna (Water flea)): 1,8 mg/l Exposure time: 48 h					
Pentamethyl piperidylsebacate	:					
Toxicity to fish :	LC50 (Fish): 0,97 mg/l Exposure time: 96 h					
M-Factor (Acute aquatic tox- : icity)	1					
M-Factor (Chronic aquatic : toxicity)	1					
12.2 Persistence and degradability No data available						
12.3 Bioaccumulative potential						
No data available						
12.4 Mobility in soil No data available						
12.5 Results of PBT and vPvB assessment						

Product:

Assessment

: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

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12.6 Endocrine disrupting pro	pertie	S	
Product:			
Assessment	:	The substance/mixture does not contain con- ered to have endocrine disrupting properties REACH Article 57(f) or Commission Delega (EU) 2017/2100 or Commission Regulation levels of 0.1% or higher.	s according to Ited regulation
12.7 Other adverse effects			
Product:			
Additional ecological infor- mation	:	An environmental hazard cannot be exclude unprofessional handling or disposal. Toxic to aquatic life with long lasting effects	

SECTION 13: Disposal considerations

13.1 Waste treatment methods The generation of waste should be avoided or minimized Product 2 wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. European Waste Catalogue : 20 01 27* paint, inks, adhesives and resins containing dangerous substances 15 01 10* packaging containing residues of or contaminated Contaminated packaging by dangerous substances

SECTION 14: Transport information

14.1 UN number : UN 3082 ADR : UN 3082 IMDG : UN 3082 IATA : UN 3082 14.2 UN proper shipping name : :

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ADR	: ENVIRONMENTALLY HAZARDOU N.O.S. (epoxy resin)	US SUBSTANCE, LIQUID,
IMDG	: ENVIRONMENTALLY HAZARDOU N.O.S. (epoxy resin)	US SUBSTANCE, LIQUID,
ΙΑΤΑ	: Environmentally hazardous substa (epoxy resin)	ance, liquid, n.o.s.
14.3 Transport hazard class(es)		
ADR	: 9	
IMDG	: 9	
ΙΑΤΑ	: 9	
14.4 Packing group		
ADR Packing group Classification Code Hazard Identification Number Labels Tunnel restriction code Remarks	 III M6 90 9 (-) Transport in accordance with spece 	ial provision 375
IMDG Packing group Labels EmS Code Remarks	 III 9 F-A, S-F Transport in accordance with 2.10. 	.2.7 of the IMDG-Code
IATA (Cargo) Packing instruction (cargo aircraft) Packing instruction (LQ) Packing group Labels Remarks	 964 Y964 III Miscellaneous Transport in accordance with spec 	ial regulation A 197
IATA (Passenger) Packing instruction (passen- ger aircraft) Packing instruction (LQ) Packing group Labels	: 964 : Y964 : III : Miscellaneous	J
14.5 Environmental hazards		
ADR		
Environmentally hazardous	: yes	
IMDG Marine pollutant		
Marine noulliant	: yes	

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Environmentally hazardous : yes IATA (Cargo) Environmentally hazardous : yes

14.6 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.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

EACH - Restrictions on the manufacture, placing on he market and use of certain dangerous substances, reparations and articles (Annex XVII)			Conditions of restriction for the fol- lowing entries should be considered: Number on list 3
International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors			Not applicable
REACH - Candidate List of Subst Concern for Authorisation (Article	tances of Very High e 59).	:	None of the components are listed (=> 0.1 %).
REACH - List of substances subj (Annex XIV)	ect to authorisation	:	Not applicable
Regulation (EC) No 1005/2009 o plete the ozone layer	n substances that de-	:	Not applicable
Regulation (EU) 2019/1021 on petants (recast)	ersistent organic pollu-	:	Not applicable
Regulation (ÉC) No 649/2012 of ment and the Council concerning of dangerous chemicals		:	Not applicable
REACH Information:	All substances containe - registered by our upsi - registered by us, and/ - excluded from the reg - exempted from the re	trea ′or jula	tion, and/or
Seveso III: Directive 2012/18/EU jor-accident hazards involving da E2			and of the Council on the control of ma- RDS
Volatile organic compounds :	(VOCV)		or volatile organic compounds Is (VOC) content: 0,05 %
			4 November 2010 on industrial ution prevention and control)

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Volatile organic compounds (VOC) content: 0,05 %

If other regulatory information applies that is not already provided elsewhere in the Safety Data Sheet, then it is described in this subsection.

Health, safety and environ- mental regulation/legislation specific for the substance or mixture:	:	Environmental Protection Act 1990 & Subsidiary Regulations Health and Safety at Work Act 1974 & Subsidiary Regulations Control of Substances Hazardous to Health Regulations (COSHH) May be subject to the Control of Major Accident Hazards Regulations (COMAH), and amendments.
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15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information

H315:Causes skin irritation.H317:May cause an allergic skin reaction.H319:Causes serious eye irritation.H400:Very toxic to aquatic life.H410:Very toxic to aquatic life with long lasting effects.H411:Toxic to aquatic life with long lasting effects.Full text of other abbreviationsAguatic Aguate:	
H319:Causes serious eye irritation.H400:Very toxic to aquatic life.H410:Very toxic to aquatic life with long lasting effects.H411:Toxic to aquatic life with long lasting effects.Full text of other abbreviations	
H400:Very toxic to aquatic life.H410:Very toxic to aquatic life with long lasting effects.H411:Toxic to aquatic life with long lasting effects.Full text of other abbreviations	
H410:Very toxic to aquatic life with long lasting effects.H411:Toxic to aquatic life with long lasting effects.Full text of other abbreviations	
H411 : Toxic to aquatic life with long lasting effects. Full text of other abbreviations	
Full text of other abbreviations	
Aquatia Aquita	
Aquatic Acute : Short-term (acute) aquatic hazard	
Aquatic Chronic : Long-term (chronic) aquatic hazard	
Eye Irrit. : Eye irritation	
Skin Irrit. : Skin irritation	
Skin Sens. : Skin sensitisation	
ADR : European Agreement concerning the International Carriage of	f
Dangerous Goods by Road	
CAS : Chemical Abstracts Service	
DNEL : Derived no-effect level	
EC50 : Half maximal effective concentration	
GHS : Globally Harmonized System	
IATA : International Air Transport Association	
IMDG : International Maritime Code for Dangerous Goods	
LD50 : Median lethal dosis (the amount of a material, given all at	
once, which causes the death of 50% (one half) of a group of	
test animals)	
LC50 : Median lethal concentration (concentrations of the chemical ir	ו
air that kills 50% of the test animals during the observation	
period)	
MARPOL : International Convention for the Prevention of Pollution from	
Ships, 1973 as modified by the Protocol of 1978	
OEL : Occupational Exposure Limit PBT : Persistent, bioaccumulative and toxic	
PBT : Persistent, bioaccumulative and toxic PNEC : Predicted no effect concentration	

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REACH	and of the C istration, Eva	EC) No 1907/2006 of the ouncil of 18 December 20 aluation, Authorisation and 1), establishing a Europea	006 concerning the Reg- d Restriction of Chemi-
SVHC		of Very High Concern	- <u> </u>
vPvB	: Very persiste	ent and very bioaccumula	tive
Eurther information			
Further information	•		_
Classification of the m	iixture:	Classificatio	on procedure:
Skin Irrit. 2	H315	Calculation n	nethod
Eye Irrit. 2	H319	Calculation n	nethod
Skin Sens. 1	H317	Calculation m	nethod
Aquatic Chronic 2	H411	Calculation m	nethod

The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.

Changes as compared to previous version !

GB / EN