Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758

# **SAFETY DATA SHEET**



ARBOSIL® 1096S Dark Bronze

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

1.1 Product identifier

Product name

identification

: ARBOSIL® 1096S Dark Bronze

Product description Other means of : Sealants

: Not available.

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

Identified uses	
Sealants	
Uses advised against	Reason

#### 1.3 Details of the supplier of the safety data sheet

Adshead Ratcliffe & Co. Ltd.	
Derby Road, Belper	
Derbyshire.	
DE56 1WJ	
+44 (0)1773 826661	
e-mail address of person responsible for this SDS	: SDSQueries@carlisleccm.com

#### 1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number	<ul> <li>National Poisons Information Service (NPIS)</li> <li>Tel: 0344 892 0111 (for healthcare professionals only)</li> </ul>
	Website: http://www.npis.org/
	Members of Public in England, Scotland and Wales can contact NHS 111/NHS 24
	by dialling 111. In Northern Ireland contact your local GP.

#### Supplier

Telephone number	: +44 (0)1773 826661 (Office hours: 8.30 - 17.00)
	(0110010013.0.00 - 11.00)

### **SECTION 2: Hazards identification**

2.1 Classification of the substance or mixture		
Product definition	: Mixture	
<b>Classification according</b>	to UK CLP/GHS	
Not classified.		

The product is not classified as hazardous according to UK CLP Regulation SI 2019/720 as amended. See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements				
Signal word	: No signal word.			
Hazard statements	: No known significant effects or critic	al hazards.		
Precautionary statements				
Prevention	: Not applicable.			
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Response	1	Not applicable.
Storage	1	Not applicable.
Disposal	:	Not applicable.
Supplemental label elements	:	Contains N-(3-(trimethoxysilyl)propyl)ethylenediamine. May produce an allergic reaction. Safety data sheet available on request.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:	Not applicable.
Special packaging requirem	en	<u>ts</u>
Containers to be fitted with child-resistant fastenings	:	Not applicable.
Tactile warning of danger	1	Not applicable.
2.3 Other hazards		
Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	:	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	:	Curing process releases 2-pentanone oxime. 2-Pentanone oxime is classified as harmful if swallowed, causes serious eye irritation, may cause damage to blood/ spleen through prolonged/repeated exposure and is harmful to aquatic life with long lasting effects. Curing process may release a small amount of methanol which is irritating to mucous membranes and has skin drying and narcotic effects.

Product/ingredient name	Identifiers	%	Classification	Туре
Limestone	EC: 215-279-6 CAS: 1317-65-3	≥25 - ≤50	Not classified.	[2]
silicon dioxide	REACH #: 01-2119379499-16 EC: 231-545-4 CAS: 7631-86-9	≤10	Not classified.	[2]
2-Pentanone, 2,2',2"-[O,O',O"- (methylsilylidyne)trioxime]	REACH #: 01-2120004323-76 EC: 484-460-1	≤5	Acute Tox. 4, H302 Eye Irrit. 2, H319	[1]
dioctyltin dilaurate	UK (GB) REACH #: UK- 01-4760535389-6 EC: 222-883-3 CAS: 3648-18-8 Index: 050-031-00-9	<0.3	Repr. 1B, H360D STOT RE 1, H372 (immune system)	[1] [2]
titanium dioxide	REACH #: 01-2119489379-17 EC: 236-675-5 CAS: 13463-67-7 Index: 022-006-00-2	≤0.1	Not classified.	[2]
toluene	EC: 203-625-9 CAS: 108-88-3 Index: 601-021-00-3	≤0.1	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361d STOT SE 3, H336 STOT RE 2, H373 (central nervous	[1] [2]

SECTION 3: Com	position/information	on ingredients

SECTION 5. Compositio				_
			system (CNS)) (inhalation) Asp. Tox. 1, H304 Aquatic Chronic 3, H412	
Silane, dichlorodimethyl-, reaction products with silica	REACH #: 01-2119379499-16 EC: 271-893-4 CAS: 68611-44-9	≤0.1	Not classified.	[2]
methanol	EC: 200-659-6 CAS: 67-56-1 Index: 603-001-00-X	<0.1	Flam. Liq. 2, H225 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT SE 1, H370	[1] [2]
			See Section 16 for the full text of the H statements declared above.	

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

#### <u>Type</u>

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

4.1 Description of first alu fi	ieasuies
Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	<ul> <li>Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.</li> </ul>
Ingestion	: Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training.

#### 4.2 Most important symptoms and effects, both acute and delayed

#### Over-exposure signs/symptoms

Eye contact	: Slightly irritating to the eyes.
Inhalation	: No specific data.
Skin contact	: May cause skin sensitisation.
Ingestion	: No specific data.

#### 4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	<ul> <li>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Curing process releases 2-pentanone oxime. 2-Pentanone oxime is classified as</li> </ul>
	harmful if swallowed, causes serious eye irritation and may cause damage to blood/ spleen through prolonged/repeated exposure.
	Curing process may release a small amount of methanol which is irritating to mucous membranes and has skin drying and narcotic effects.

### **SECTION 4: First aid measures**

Specific treatments : Antidote for me

: Antidote for methanol poisoning is ethanol.

## **SECTION 5: Firefighting measures**

5.1 Extinguishing media						
Suitable extinguishing media	Jse an extinguishing agent suitable for the surrounding fire.					
Unsuitable extinguishing media	xtinguishing : None known.					
5.2 Special hazards arising fr	the substance or mixture					
Hazards from the substance or mixture	No specific fire or explosion hazard.					
Hazardous combustion products	Decomposition products may include the following materials: carbon dioxide carbon monoxide netal oxide/oxides					
5.3 Advice for firefighters						
Special protective actions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the here is a fire. No action shall be taken involving any personal risk or withosuitable training.					
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contai preathing apparatus (SCBA) with a full face-piece operated in positive presended.					

### **SECTION 6: Accidental release measures**

6.1 Personal precautions, pro	te	ctive equipment and emergency procedures
For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
For emergency responders	:	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
6.2 Environmental precautions	:	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
6.3 Methods and material for	со	ntainment and cleaning up
Small spill	:	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	:	Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
6.4 Reference to other sections	:	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

### SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

#### 7.1 Precautions for safe handling

Protective measures
Advice on general occupational hygiene
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

#### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

#### 7.3 Specific end use(s)

Recommendations

: Not available.

Industrial sector specific solutions

: Not available.

### **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

#### **Occupational exposure limits**

Product/ingredient name	Exposure limit values
Limestone	EH40/2005 WELs (United Kingdom (UK), 1/2020). [calcium
	carbonate inhalable dust/respirable dust]
	TWA: 4 mg/m <sup>3</sup> 8 hours. Form: respirable dust
	TWA: 10 mg/m <sup>3</sup> 8 hours. Form: inhalable dust
	EH40/2005 WELs (United Kingdom (UK), 1/2020). [limestone
	total inhalable/respirable]
	TWA: 4 mg/m <sup>3</sup> 8 hours. Form: respirable
	TWA: 10 mg/m <sup>3</sup> 8 hours. Form: total inhalable
silicon dioxide	EH40/2005 WELs (United Kingdom (UK), 1/2020). [silica,
	amorphous inhalable dust/respirable dust]
	TWA: 2.4 mg/m <sup>3</sup> 8 hours. Form: respirable dust
	TWA: 6 mg/m <sup>3</sup> 8 hours. Form: inhalable dust
dioctyltin dilaurate	EH40/2005 WELs (United Kingdom (UK), 1/2020). [tin
	compounds, organic, except cyhexatin (ISO) as Sn] Absorbe
	through skin.
	STEL: 0.2 mg/m³, (as Sn) 15 minutes.
	TWA: 0.1 mg/m³, (as Sn) 8 hours.
tanium dioxide	EH40/2005 WELs (United Kingdom (UK), 1/2020).
	TWA: 4 mg/m <sup>3</sup> 8 hours. Form: respirable
	TWA: 10 mg/m <sup>3</sup> 8 hours. Form: total inhalable
oluene	EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed
	through skin.
	STEL: 384 mg/m <sup>3</sup> 15 minutes.
	TWA: 191 mg/m <sup>3</sup> 8 hours.
	TWA: 50 ppm 8 hours.
	STEL: 100 ppm 15 minutes.
Silane, dichlorodimethyl-, reaction products	EH40/2005 WELs (United Kingdom (UK), 1/2020).
vith silica	TWA: 2.4 mg/m <sup>3</sup> 8 hours. Form: Respirable dust
	TWA: 6 mg/m <sup>3</sup> 8 hours. Form: inhalable dust
nethanol	EH40/2005 WELs (United Kingdom (UK), 1/2020). Absorbed
	through skin.

ARBOSIL® 1096S Dark Bronze

### **SECTION 8: Exposure controls/personal protection**

	STEL: 333 mg/m <sup>3</sup> 15 minutes. STEL: 250 ppm 15 minutes. TWA: 266 mg/m <sup>3</sup> 8 hours. TWA: 200 ppm 8 hours.
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#### **Biological exposure indices**

No exposure indices known.

Recommended monitoring	1	Reference should be made to appropriate monitoring standards. Reference to
procedures		national guidance documents for methods for the determination of hazardous
		substances will also be required.

#### **DNELs/DMELs**

Product/ingredient name	Туре	Exposure	Value	Population	Effects
2-Pentanone, 2,2',2"-[0,0',0"-	DNEL	Long term	0.229 mg/	Workers	Systemic
(methylsilylidyne)trioxime]		Inhalation	m³		
	DNEL	Long term Dermal	0.065 mg/	Workers	Systemic
			kg bw/day		
dioctyltin dilaurate	DNEL	Long term Oral	0.0005 mg/	General	Systemic
			kg bw/day	population	
	DNEL	Long term	0.0009 mg/		Systemic
		Inhalation	m³	population	
	DNEL	Long term	0.0035 mg/	Workers	Systemic
		Inhalation	m³		
toluene	DNEL	Long term Oral	8.13 mg/	General	Systemic
		5	kg bw/day	population	,
	DNEL	Long term	56.5 mg/m <sup>3</sup>		Local
		Inhalation	J.	population	
	DNEL	Long term	56.5 mg/m <sup>3</sup>		Systemic
		Inhalation	0	population	,
	DNEL	Long term	192 mg/m <sup>3</sup>	Workers	Local
		Inhalation	- J.		
	DNEL	Long term	192 mg/m <sup>3</sup>	Workers	Systemic
		Inhalation	- J.		,
	DNEL	Long term Dermal	226 mg/kg	General	Systemic
			bw/day	population	- ,
	DNEL	Short term	226 mg/m <sup>3</sup>	General	Local
		Inhalation		population	
	DNEL	Short term	226 mg/m <sup>3</sup>	General	Systemic
		Inhalation		population	- ,
	DNEL	Long term Dermal	384 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	384 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term	384 mg/m <sup>3</sup>	Workers	Systemic
		Inhalation	504 mg/m	WOIKEIS	Oysternic
methanol	DNEL	Short term Oral	4 mg/kg	General	Systemic
methanol			bw/day	population	Oysternie
	DNEL	Long term Oral	4 mg/kg	General	Systemic
	DIVEL	Long term ordi	bw/day	population	Cysternio
	DNEL	Short term Dermal	4 mg/kg	General	Systemic
	DITE	enert term Derma	bw/day	population	Cyclonno
	DNEL	Long term Dermal	4 mg/kg	General	Systemic
	0.122	Long toni Donna	bw/day	population	oyotonno
	DNEL	Short term Dermal	20 mg/kg	Workers	Systemic
			bw/day		- ,
	DNEL	Long term Dermal	20 mg/kg	Workers	Systemic
			bw/day		,
	DNEL	Short term	26 mg/m <sup>3</sup>	General	Local
		Inhalation		population	
	DNEL	Long term	26 mg/m <sup>3</sup>	General	Local
		Inhalation		population	
	DNEL	Short term	26 mg/m <sup>3</sup>	General	Systemic
		Inhalation		population	
e of issue/Date of revision 15 Dec	ember 2023	Date of previous issue	: No prev	ious validation Ve	ersion :1

### **SECTION 8: Exposure controls/personal protection**

DNEL	Long term	26 mg/m³	General	Systemic
	Inhalation		population	
DNEL	Short term	130 mg/m³	Workers	Local
	Inhalation			
DNEL	Long term	130 mg/m³	Workers	Local
	Inhalation			
DNEL	Short term	130 mg/m <sup>3</sup>	Workers	Systemic
	Inhalation	-		-
DNEL	Long term	130 mg/m <sup>3</sup>	Workers	Systemic
	Inhalation	-		-
	DNEL DNEL DNEL DNEL	DNEL Long term Inhalation DNEL Short term Inhalation DNEL Long term Inhalation DNEL Short term Inhalation DNEL Long term	InhalationDNELShort term130 mg/m³Inhalation130 mg/m³DNELLong term130 mg/m³Inhalation130 mg/m³DNELShort term130 mg/m³Inhalation130 mg/m³DNELLong term130 mg/m³	DNELLong term26 mg/m³General populationDNELShort term130 mg/m³WorkersDNELLong term130 mg/m³WorkersDNELLong term130 mg/m³WorkersDNELShort term130 mg/m³WorkersDNELShort term130 mg/m³WorkersDNELLong term130 mg/m³WorkersDNELLong term130 mg/m³Workers

#### **PNECs**

Product/ingredient name	Compartment Detail	Value	Method Detail
2-Pentanone, 2,2',2"-[O,O',O"- (methylsilylidyne)trioxime]	Fresh water	0.1 mg/l	-
	Marine water	0.01 mg/l	-
	Sewage Treatment Plant	2.15 mg/l	-
	Fresh water sediment	0.569 mg/kg	-
	Marine water sediment	0.057 mg/kg	-
	Soil	0.044 mg/kg	-
toluene	Fresh water	0.68 mg/l	-
	Fresh water	0.68 mg/l	-
	Marine water	0.68 mg/l	-
	Sewage Treatment Plant	13.61 mg/l	-
	Fresh water sediment	16.39 mg/kg	-
	Marine water sediment	16.39 mg/kg	-
	Soil	2.89 mg/kg	-

#### 8.2 Exposure controls

Appropriate techniques should be used to remove potentially contaminated of Wash contaminated clothing before reusing. Ensure that eyewash stations is safety showers are close to the workstation location.Eye/face protection: Safety eyewear complying with an approved standard should be used when assessment indicates this is necessary to avoid exposure to liquid splashes, gases or dusts. If contact is possible, the following protection should be wor unless the assessment indicates a higher degree of protection: safety glass side-shields.Skin protection: Chemical-resistant, impervious gloves complying with an approved standard be worn at all times when handling chemical products if a risk assessment in this is necessary.Body protection: Personal protective equipment for the body should be selected based on the being performed and the risks involved and should be approved by a special before handling this product.Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be selected based on the task being performed and the risks involved and should be selected based on the task being performed and the risks involved and should be selected based on the task being performed and the risks involved and should be selected based on the task being performed and the risks involved and should be selected based on the task being performed and the risks involved and should be selected based on the task being performed and the risks involved and shoul approved by a specialist before handling this product.	Apooulo controlo		
Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products before eating, smoking and using the lavatory and at the end of the working Appropriate techniques should be used to remove potentially contaminated of Wash contaminated clothing before reusing. Ensure that eyewash stations is safety showers are close to the workstation location.Eye/face protection: Safety eyewear complying with an approved standard should be used when assessment indicates this is necessary to avoid exposure to liquid splashes, gases or dusts. If contact is possible, the following protection should be wor unless the assessment indicates a higher degree of protection: safety glass side-shields.Skin protection: Chemical-resistant, impervious gloves complying with an approved standard be worn at all times when handling chemical products if a risk assessment in this is necessary.Body protection: Personal protective equipment for the body should be selected based on the being performed and the risks involved and should be approved by a special before handling this product.Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.			borne
before eating, smoking and using the lavatory and at the end of the working Appropriate techniques should be used to remove potentially contaminated of Wash contaminated clothing before reusing. Ensure that eyewash stations is safety showers are close to the workstation location.Eye/face protection: Safety eyewear complying with an approved standard should be used when assessment indicates this is necessary to avoid exposure to liquid splashes, gases or dusts. If contact is possible, the following protection should be wor unless the assessment indicates a higher degree of protection: safety glass side-shields.Skin protection: Chemical-resistant, impervious gloves complying with an approved standard be worn at all times when handling chemical products if a risk assessment in this is necessary.Body protection: Personal protective equipment for the body should be selected based on the being performed and the risks involved and should be approved by a special before handling this product.Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved and should be selected based on the task being performed and the risks involved and should be selected based on the task being performed and the risks involved and should be selected based on the task being performed and the risks involved and should be selected based on the task being performed and the risks involved and should be selected based on the task being performed and the risks involved and should be selected based on the task being performed and the risks involved and should be selected based on the task being performed and the risks involved and should be selected based on the task being performed and the risks involved and should be <br< td=""><td>vidual protection measur</td><td></td><td></td></br<>	vidual protection measur		
<ul> <li>assessment indicates this is necessary to avoid exposure to liquid splashes, gases or dusts. If contact is possible, the following protection should be wor unless the assessment indicates a higher degree of protection: safety glass side-shields.</li> <li>Skin protection</li> <li>Hand protection</li> <li>Chemical-resistant, impervious gloves complying with an approved standard be worn at all times when handling chemical products if a risk assessment in this is necessary.</li> <li>Body protection</li> <li>Personal protective equipment for the body should be selected based on the being performed and the risks involved and should be approved by a special before handling this product.</li> <li>Other skin protection</li> <li>Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a special before handling this product.</li> <li>Use appropriate respiratory protection if there is a risk of exceeding any exp</li> </ul>	giene measures	before eating, smoking and using the lavatory and at the end of the working p Appropriate techniques should be used to remove potentially contaminated of Wash contaminated clothing before reusing. Ensure that eyewash stations a	eriod. othing.
<ul> <li>Hand protection</li> <li>Chemical-resistant, impervious gloves complying with an approved standard be worn at all times when handling chemical products if a risk assessment in this is necessary.</li> <li>Body protection</li> <li>Personal protective equipment for the body should be selected based on the being performed and the risks involved and should be approved by a special before handling this product.</li> <li>Other skin protection</li> <li>Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be selected based and should be selected based on the task being performed and the risks involved and should be selected based on the task being performed and the risks involved and should be selected based on the task being performed and the risks involved and should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.</li> <li>Use appropriate respiratory protection if there is a risk of exceeding any exp</li> </ul>	e/face protection	assessment indicates this is necessary to avoid exposure to liquid splashes, gases or dusts. If contact is possible, the following protection should be worn unless the assessment indicates a higher degree of protection: safety glasses	nists, ,
Body protectionbe worn at all times when handling chemical products if a risk assessment in this is necessary.Body protectionPersonal protective equipment for the body should be selected based on the being performed and the risks involved and should be approved by a specia before handling this product.Other skin protectionAppropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.Respiratory protectionUse appropriate respiratory protection if there is a risk of exceeding any exp	in protection		
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<ul> <li>selected based on the task being performed and the risks involved and shou approved by a specialist before handling this product.</li> <li>Respiratory protection : Use appropriate respiratory protection if there is a risk of exceeding any exp</li> </ul>	ody protection	being performed and the risks involved and should be approved by a special	
	ther skin protection	selected based on the task being performed and the risks involved and shou	d be
meets the appropriate standard or certification. Respirators must be used	spiratory protection	limits. Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training	t

Date of issue/Date of revision

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### **SECTION 8: Exposure controls/personal protection**

Environmental exposure	: Emissions from ventilation or work process equipment should be checked to
controls	ensure they comply with the requirements of environmental protection legislation.
	In some cases, fume scrubbers, filters or engineering modifications to the process
	equipment will be necessary to reduce emissions to acceptable levels.

### **SECTION 9: Physical and chemical properties**

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

#### 9.1 Information on basic physical and chemical properties

Appearance		
Physical state	:	Solid. [Paste.]
Colour	:	Dark Bronze
Odour	:	Not available.
Odour threshold	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	Not available.
Flammability (solid, gas)	:	Not available.
Upper/lower flammability or explosive limits	:	Not applicable.
Flash point	:	Not applicable.
Auto-ignition temperature	;	Not applicable.
Decomposition temperature	;	Not available.
рН	1	Not available.
Viscosity	;	Not applicable.
Solubility in water	:	Insoluble
Miscible with water	:	No.
Partition coefficient: n-octanol/ water	:	Not applicable.
Vapour pressure	:	Not available.
Relative density	:	1.24 to 1.28
Vapour density	:	Not applicable.
Explosive properties	:	Not available.
Oxidising properties	:	Not available.
Particle characteristics		
Median particle size	:	Not available.

### **SECTION 10: Stability and reactivity**

Date of issue/Date of revision	15 December 2023Date of previous issue       : No previous validation       Version       : 1       8/15
10.6 Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
10.5 Incompatible materials	: No specific data.
10.4 Conditions to avoid	: No specific data.
10.3 Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
10.2 Chemical stability	: The product is stable.
10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.

### **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-Pentanone, 2,2',2"-[O,O',	LD50 Dermal	Rat - Male,	>1782 mg/kg	-
O"-(methylsilylidyne)		Female		
trioxime]				
-	LD50 Oral	Rat - Female	1234 mg/kg	-
dioctyltin dilaurate	LD50 Oral	Rat	6450 mg/kg	-
toluene	LC50 Inhalation Vapour	Rat	49 g/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	636 mg/kg	-
Silane, dichlorodimethyl-,	LC50 Inhalation Vapour	Rat	450 mg/m <sup>3</sup>	4 hours
reaction products with silica			-	
	LD50 Oral	Rat	>5000 mg/kg	-
methanol	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours
	LC50 Inhalation Gas.	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
ARBOSIL® 1096S Dark Bronze	32122.9	N/A	N/A	N/A	N/A
2-Pentanone, 2,2',2"-[O,O',O"-(methylsilylidyne) trioxime]	1234	N/A	N/A	N/A	N/A
dioctyltin dilaurate	6450	N/A	N/A	N/A	N/A
toluene	N/A	N/A	N/A	49	N/A
methanol	100	300	64000	3	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
silicon dioxide	Eyes - Mild irritant	Rabbit	-	24 hours 25	-
				mg	
2-Pentanone, 2,2',2"-[O,O', O"-(methylsilylidyne)trioxime]	Eyes - Irritant	Rabbit	-	-	-
titanium dioxide	Skin - Mild irritant	Human	-	72 hours 300 ug l	-
toluene	Eyes - Mild irritant	Rabbit	-	0.5 minutes	-
				100 mg	
	Eyes - Mild irritant	Rabbit	-	870 ug	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2	-
				mg	
	Skin - Mild irritant	Pig	-	24 hours 250 uL	-
	Skin - Mild irritant	Rabbit	-	435 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Moderate irritant	Rabbit	-	500 mg	-
methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	_	40 mg	_
	Skin - Moderate irritant	Rabbit	_	24 hours 20	_
		Rabbit		mg	
Conclusion/Summary	1	1	1	I	
Skin	: Based on available data, the	classification cr	iteria are	not met.	
Eyes	: Based on available data, the	classification cr	iteria are	not met.	

**Respiratory** : Based on available data, the classification criteria are not met.

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### **SECTION 11: Toxicological information**

#### **Sensitisation**

Conclusion/Summary		
Skin	:	Based on available data, the classification criteria are not met.
Respiratory	:	Based on available data, the classification criteria are not met.
<u>Mutagenicity</u>		
<b>Conclusion/Summary</b>	÷	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>		
<b>Conclusion/Summary</b>	;	Based on available data, the classification criteria are not met.
Reproductive toxicity		
<b>Conclusion/Summary</b>	:	Based on available data, the classification criteria are not met.
<b>Teratogenicity</b>		
<b>Conclusion/Summary</b>	1	Based on available data, the classification criteria are not met.
Specific target organ toxicity	<u>v (</u>	<u>single exposure)</u>

Product/ingredient name	Category	Route of exposure	Target organs
toluene	Category 3	-	Narcotic effects
methanol	Category 1		-

#### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
	Category 1 Category 2	inhalation	immune system central nervous system (CNS)

#### **Aspiration hazard**

Product/ingredient name	Result
toluene	ASPIRATION HAZARD - Category 1

Information on likely routes of exposure	: Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Potential acute health effects	
Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Eye contact	<ul> <li>sical, chemical and toxicological characteristics</li> <li>Slightly irritating to the eyes.</li> </ul>
Inhalation	: No specific data.
Skin contact	: May cause skin sensitisation.
Ingestion	: No specific data.
<u>Delayed and immediate effect</u> <u>Short term exposure</u> Potential immediate	<ul> <li>as well as chronic effects from short and long-term exposure</li> <li>May cause skin sensitisation.</li> </ul>
effects	. May cause skin sensilisation.
Potential delayed effects	: Not available.
<u>Long term exposure</u>	
Potential immediate effects	: Not available.

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### **SECTION 11: Toxicological information**

Potential delayed effects	: Not available.
Potential chronic health eff	ects
Not available.	
Conclusion/Summary	: Based on available data, the classification criteria are not met.
General	: Curing process releases 2-pentanone oxime. 2-Pentanone oxime is classified as harmful if swallowed, causes serious eye irritation and may cause damage to blood/ spleen through prolonged/repeated exposure. Curing process may release a small amount of methanol which is irritating to mucous membranes and has skin drying and narcotic effects.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Reproductive toxicity	: No known significant effects or critical hazards.

#### **Other information**

: Not available.

### **SECTION 12: Ecological information**

#### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposur
silicon dioxide	Acute EC50 2.2 g/L Fresh water	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate	48 hours
	Chronic NOEC 12.5 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia magna</i> - Neonate	21 days
titanium dioxide	Acute LC50 3 mg/l Fresh water	Crustaceans - Water flea - <i>Ceriodaphnia dubia</i> - Neonate	48 hours
	Acute LC50 6.5 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia</i> <i>pulex</i> - Neonate	48 hours
	Acute LC50 >1000000 μg/l Marine water	Fish - Mummichog - Fundulus heteroclitus	96 hours
oluene	Acute EC50 >433 ppm Marine water	Algae - Diatom - <i>Skeletonema</i> costatum	96 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans - Scud - <i>Gammarus pseudolimnaeus</i> - Adult	48 hours
	Acute EC50 6000 μg/l Fresh water	Daphnia - Water flea - <i>Daphnia</i> <i>magna</i> - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 5500 μg/l Fresh water	Fish - Coho salmon,silver salmon - <i>Oncorhynchus kisutch</i> - Fry	96 hours
	Chronic NOEC 1 mg/l Fresh water	Daphnia - Water flea - Daphnia magna	21 days
methanol	Acute EC50 16.912 mg/l Marine water	Algae - Green algae - Ulva pertusa	96 hours
	Acute LC50 2500000 µg/l Marine water	Crustaceans - Common shrimp, sand shrimp - <i>Crangon crangon</i> - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - Water flea - <i>Daphnia</i> <i>magna</i> - Neonate	48 hours
	Acute LC50 290 mg/l Fresh water	Fish - Zebra danio - <i>Danio rerio</i> - Egg	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - Green algae - <i>Ulva</i> pertusa	96 hours

Curing process releases 2-pentanone oxime. 2-Pentanone oxime is classified as harmful to aquatic life with long lasting effects.

#### 12.2 Persistence and degradability

Date of issue/Date of revision	15 December 2023 Date of previous issue	: No previous validation	Version : 1	11/15
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### **SECTION 12: Ecological information**

Conclusion/Summary	: Not available.		
Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-Pentanone, 2,2',2"-[O,O', O"-(methylsilylidyne)trioxime] toluene	-		Not readily Readily

#### **12.3 Bioaccumulative potential**

Product/ingredient name	LogPow	BCF	Potential
dioctyltin dilaurate	-	<100	Low
toluene	2.73	90	Low
methanol	-0.77	<10	Low

I2.4 Mobility in soil	
Soil/water partition coefficient (Koc)	: Not available.
Mobility	: Not available.

#### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

### **SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

#### **13.1 Waste treatment methods**

Product	
Methods of disposal	The generation of waste should be avoided or minimised wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
Hazardous waste	Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.
Packaging	
Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special precautions	This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

### **SECTION 14: Transport information**

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SECTION 14: Transport information				
	ADR/RID	ADN	IMDG	ΙΑΤΑ
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

user

14.6 Special precautions for : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture **UK (GB)/REACH**

#### Annex XIV - List of substances subject to authorisation

: Not available.

#### **Annex XIV**

None of the components are listed.

#### Substances of very high concern

None of the components are listed.

#### **Ozone depleting substances**

Not listed.

#### Prior Informed Consent (PIC)

Part	Ingredient name	Status
Part 1	dioctyltin compounds	Listed

### Persistent Organic Pollutants

Not listed.

#### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
dioctyltin dilaurate	<0.3	20
toluene	≤0.1	48
methanol	<0.1	69

#### Labelling

: Not applicable.

#### **Seveso Directive**

This product is not controlled under the Seveso Directive.

#### **EU regulations**

### **SECTION 15: Regulatory information**

Industrial emissions (integrated pollution prevention and control) -	: Not listed
Air Industrial emissions (integrated pollution prevention and control) - Water	: Not listed
International regulations	
Chemical Weapon Convention Not listed.	n List Schedules I, II & III Chemicals
Montreal Protocol Not listed.	
Stockholm Convention on P Not listed.	ersistent Organic Pollutants
Rotterdam Convention on P Not listed.	ior Informed Consent (PIC)
UNECE Aarhus Protocol on	OPs and Heavy Metals
Not listed.	
Inventory list	
Australia	: Not determined.
Canada	: Not determined.
China	: Not determined.
Eurasian Economic Union	: Russian Federation inventory: Not determined.
Japan	: Japan inventory (CSCL): Not determined. Japan inventory (ISHL): Not determined.
New Zealand	: Not determined.
Philippines	: Not determined.
Republic of Korea	: Not determined.
Taiwan	: Not determined.
Thailand	: Not determined.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: Not determined.
15.2 Chemical safety assessment	: This product contains substances for which Chemical Safety Assessments are required.

### **SECTION 16: Other information**

Indicates information that has changed from previously issued version.

Abbreviations and acronyms	<ul> <li>ATE = Acute Toxicity Estimate GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = GB CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number SGG = Segregation Group vPvB = Very Persistent and Very Bioaccumulative</li> </ul>
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ARBOSIL® 1096S Dark Bronze

### **SECTION 16: Other information**

Procedure used to derive the classification

Not classified.

#### Full text of abbreviated H statements

H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H360D	May damage the unborn child.
H361d	Suspected of damaging the unborn child.
H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

#### Full text of classifications

Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Asp. Tox. 1	ASPIRATION HAZARD - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 1	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3
Date of printing	: 15 December 2023
Date of issue/ Date of	: 15 December 2023

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revision	
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Version	: 1

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.