

Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

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

1.1. Product identifier

Product name **AS1723**

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

Intended use **Adhesive sealant.**

1.3. Details of the supplier of the safety data sheet

Name **CHT UK BRIDGWATER LTD**
Full address **Amber House Showground Road**
District and Country **TA6 6AJ Bridgwater (Somerset)**
England
Tel. **+44(0)1278411400**
Fax **+44(0)1278411444**

e-mail address of the competent person
responsible for the Safety Data Sheet **info.uk@cht.com**Supplier: **CHT Germany GmbH**
Bismarckstraße 102
72072 Tübingen
Germany

1.4. Emergency telephone number

For urgent inquiries refer to **Australia: 0418529118**
All other enquiries +44(0)1278 411400

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Eye irritation, category 2	H319	Causes serious eye irritation.
Skin sensitization, category 1B	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: **Warning**Hazard statements:
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.

SECTION 2. Hazards identification ... / >>

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P280 Wear protective gloves / eye protection / face protection.
P261 Avoid breathing dust / fume / gas / mist / vapours / spray.
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.
P337+P313 If eye irritation persists: Get medical advice / attention.

Contains: VINYLTRIMETHOXYSILANE

2.3. Other hazards

vPvB substances contained:
DODECAMETHYL CYCLOHEXASILOXANE

PBT substances contained:
DODECAMETHYL CYCLOHEXASILOXANE

The product does not contain substances with endocrine disrupting properties in concentration $\geq 0.1\%$.

SECTION 3. Composition/information on ingredients

3.1. Substances

Information not relevant

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
VINYLTRIMETHOXYSILANE		
CAS 2768-02-7	$2.5 \leq x < 3$	Flam. Liq. 3 H226, Acute Tox. 4 H332, Skin Sens. 1B H317
EC 220-449-8		LC50 Inhalation vapours: 16.79 mg/l/4h
INDEX		
REACH Reg. 01-2119513215-52		
Bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium		
CAS 83877-91-2	$1 \leq x < 1.5$	Flam. Liq. 3 H226, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335, STOT SE 3 H336
EC 281-161-6		
INDEX		
REACH Reg. 01-2119968551-31-0001		
DODECAMETHYL CYCLOHEXASILOXANE		
CAS 540-97-6	$0.1 \leq x < 0.2$	Substance PBT
EC 208-762-8		Substance vPvB
INDEX		
REACH Reg. 01-2119517435-42		
OCTAMETHYLCYCLOTETRASIOXANE		
CAS 556-67-2	$0.025 \leq x < 0.13$	Repr. 2 H361f, Aquatic Chronic 1 H410 M=10
EC 209-136-7		
INDEX		
REACH Reg. 01-2119529238-36		
METHANOL		
CAS 67-56-1	$0 \leq x < 0.1$	Flam. Liq. 2 H225, Acute Tox. 3 H301, Acute Tox. 3 H311, Acute Tox. 3 H331, STOT SE 1 H370
EC 200-659-6		STOT SE 2 H371: $\geq 3\%$
INDEX 603-001-00-X		STA Oral: 100 mg/kg, STA Dermal: 300 mg/kg, STA Inhalation vapours: 3 mg/l, STA Inhalation mists/powders: 0.501 mg/l
REACH Reg. 01-2119433307-44		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

CZE	Česká Republika	Nariadení vlády č. 41/2020 Sb. Nariadení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů
DEU	Deutschland	Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56
DNK	Danmark	Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019
ESP	España	Límites de exposición profesional para agentes químicos en España 2021
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
FIN	Suomi	HTP-VÄRDEN 2020. Koncentrationer som befunnits skadliga. SOCIAL - OCH HÄLSOVÄRDSMINISTERIETS PUBLIKATIONER 2020:25
HUN	Magyarország	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelethez a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
NOR	Norge	Forskrift om endring i forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdier), 21. august 2018 nr. 1255
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit
PRT	Portugal	Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos
POL	Polska	Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy
ROU	România	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s expozíciou karcinogénym a mutagénym faktorom pri práci v znení neskorších predpisov
TUR	Türkiye	Kimyasal Maddelerin Çalışmalarda Sağlık ve Güvenlik Önlemleri Hakkında Yönetmelik 12.08.2013 / 28733
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Fourth Edition 2020)
EU	OEL EU	Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2021
	RCP TLV	ACGIH TLVs and BEIs – Appendix H

SECTION 8. Exposure controls/personal protection ... / >>

VINYLTRIMETHOXSILANE

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.34	mg/l
Normal value in marine water	0.034	mg/l
Normal value for water, intermittent release	3.4	mg/l
Normal value of STP microorganisms	110	mg/l
Normal value for the terrestrial compartment	0.046	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers		Chronic	Chronic	Effects on workers			
	Acute	Acute			Acute	Acute	Chronic	Chronic
	local	systemic	local	systemic	local	systemic	local	systemic
Inhalation					VND	4.9	VND	4.9
						mg/m3		mg/m3
Skin					VND	0.69	VND	0.69
						mg/kg		mg/kg
						bw/d		bw/d

Bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium

Predicted no-effect concentration - PNEC

Normal value in fresh water	0.1	mg/l
Normal value in marine water	0.01	mg/l
Normal value for fresh water sediment	0.082	mg/kg
Normal value for marine water sediment	0.008	mg/kg
Normal value of STP microorganisms	28	mg/l
Normal value for the terrestrial compartment	0.019	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers		Chronic	Chronic	Effects on workers			
	Acute	Acute			Acute	Acute	Chronic	Chronic
	local	systemic	local	systemic	local	systemic	local	systemic
Inhalation								254
								mg/m3

DODECAMETHYL CYCLOHEXASILOXANE

Threshold Limit Value

Type	Country	TWA/8h	STEL/15min	Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm
RCP TLV			10		RESP

Predicted no-effect concentration - PNEC

Normal value for fresh water sediment	2.826	mg/kg
Normal value for marine water sediment	0.282	mg/kg
Normal value of STP microorganisms	1	mg/l
Normal value for the terrestrial compartment	3.336	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers		Chronic	Chronic	Effects on workers			
	Acute	Acute			Acute	Acute	Chronic	Chronic
	local	systemic	local	systemic	local	systemic	local	systemic
Oral				1.7				
				mg/kg bw/d				
Inhalation			0.3	2.7			1.22	11
			mg/m3	mg/m3			mg/m3	mg/m3

OCTAMETHYLCYCLOTETRAISILOXANE

Predicted no-effect concentration - PNEC

Normal value in marine water	0.044	mg/l
Normal value for fresh water sediment	0.128	mg/kg
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0.16	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers		Chronic	Chronic	Effects on workers			
	Acute	Acute			Acute	Acute	Chronic	Chronic
	local	systemic	local	systemic	local	systemic	local	systemic
Inhalation	61	305	61	305				
	mg/m3	mg/m3	mg/m3	mg/m3				

SECTION 8. Exposure controls/personal protection ... / >>
METHANOL
Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m ³	ppm	mg/m ³	ppm		
TLV	CZE	250	187.75	1000	751	SKIN	
AGW	DEU	270	200	1080	800	SKIN	
MAK	DEU	130	100	260	200	SKIN	
TLV	DNK	260	200			SKIN	E
VLA	ESP	266	200			SKIN	
VLEP	FRA	260	200	1300	1000	SKIN	11
HTP	FIN	270	200	330	250	SKIN	
AK	HUN	260				SKIN	
VLEP	ITA	260	200			SKIN	
TLV	NOR	130	100			SKIN	
TGG	NLD	133				SKIN	
VLE	PRT	260	200			SKIN	
NDS/NDSch	POL	100		300		SKIN	
TLV	ROU	260	200			SKIN	
NGV/KGV	SWE	250	200	350 (C)	250 (C)	SKIN	
NPEL	SVK	260	200			SKIN	
ESD	TUR	260	200			SKIN	
WEL	GBR	266	200	333	250	SKIN	
OEL	EU	260	200				
TLV-ACGIH		262	200	328	250	SKIN	

Predicted no-effect concentration - PNEC

Normal value in fresh water	154	mg/l
Normal value in marine water	15.4	mg/l
Normal value for fresh water sediment	570.4	mg/kg
Normal value for water, intermittent release	1540	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	23.5	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral							VND	8 mg/kg bw/d
Inhalation							50 mg/m ³	50 mg/m ³
Skin							VND	8 mg/kg bw/d

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are

SECTION 8. Exposure controls/personal protection ... / >>

required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	viscous liquid	
Colour	colourless	
Odour	characteristic	
Melting point / freezing point	Not available	
Initial boiling point	Not available	
Flammability	Not available	
Lower explosive limit	Not available	
Upper explosive limit	Not available	
Flash point	> 150 °C	
Auto-ignition temperature	> 400 °C	
pH	Not available	
Kinematic viscosity	69903 cSt	
Dynamic viscosity	72000 mPa.s	
Solubility	immiscible with water	
Partition coefficient: n-octanol/water	Not available	
Vapour pressure	Not available	
Density and/or relative density	1.03	
Relative vapour density	Not available	
Particle characteristics	Not applicable	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Information not available

9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU) 5.84 % - 60.16 g/litre

SECTION 10. Stability and reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

10.4. Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

10.5. Incompatible materials

Information not available

SECTION 10. Stability and reactivity ... / >>**10.6. Hazardous decomposition products**

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

METHANOL

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; contact with the skin of products containing the substance.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

METHANOL

The minimum lethal dose for humans by ingestion is considered to be in the range from 300 to 1000 mg/kg. Ingestion of 4-10 ml of the substance may cause permanent blindness in adult humans (IPCS).

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - vapours) of the mixture:

> 20 mg/l

ATE (Oral) of the mixture:

Not classified (no significant component)

ATE (Dermal) of the mixture:

Not classified (no significant component)

VINYLTRIMETHOXYSILANE

LD50 (Dermal):

3460 mg/kg (Rabbit)

LD50 (Oral):

7430 mg/kg (Rat)

LC50 (Inhalation vapours):

16.79 mg/l/4h (Rat)

Bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium

LD50 (Oral):

> 2000 mg/kg Rat

OCTAMETHYLCYCLOTETRASILOXANE

LD50 (Dermal):

> 2375 mg/kg Rat

LD50 (Oral):

4800 mg/kg Rat, male

LC50 (Inhalation vapours):

36 mg/l/4h Rat, male and female

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation

RESPIRATORY OR SKIN SENSITISATION

Sensitising for the skin

Respiratory sensitization

Information not available

SECTION 11. Toxicological information ... / >>Skin sensitization

Information not available

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

Adverse effects on sexual function and fertility

Information not available

Adverse effects on development of the offspring

Information not available

Effects on or via lactation

Information not available

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class Viscosity: 69903 cSt

11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

SECTION 12. Ecological information

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity

SECTION 12. Ecological information ... / >>

VINYLTRIMETHOXYSILOXANE

LC50 - for Fish 100 mg/l/96h

METHANOL

LC50 - for Fish 15400 mg/l/96h (Lepomis macrochirus bluegill sunfish)
EC50 - for Crustacea > 10000 mg/l/48h (daphnia magna water flea)

OCTAMETHYLCYCLOTETRAILOXANE

LC50 - for Fish > 0.022 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea 0.015 mg/l/48h Daphnia magna
EC10 for Algae / Aquatic Plants > 0.022 mg/l/96h Pseudokirchneriella subcapitata
Chronic NOEC for Fish > 0.0044 mg/l Oncorhynchus mykiss
Chronic NOEC for Crustacea > 0.0015 mg/l Daphnia magna

Bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium

LC50 - for Fish 1460 mg/l/96h Pimephales promelas
EC50 - for Crustacea > 29 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants > 100 mg/l/72h Pseudokirchneriella subcapitata
Chronic NOEC for Crustacea 20 mg/l Daphnia magna

12.2. Persistence and degradability

METHANOL

Solubility in water 1000 - 10000 mg/l
Rapidly degradable

Bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium

Rapidly degradable

12.3. Bioaccumulative potential

METHANOL

Partition coefficient: n-octanol/water -0.77
BCF 0.2

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

vPvB substances contained:

DODECAMETHYL CYCLOHEXASILOXANE

PBT substances contained:

DODECAMETHYL CYCLOHEXASILOXANE

12.6. Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

12.7. Other adverse effects

Information not available

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number or ID number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

Australia AICS: On or in compliance with the inventory.
 Canada DSL Inventory List: On or in compliance with the inventory.
 EINECS, ELINCS or NLP: On or in compliance with the inventory.
 Japan (ENCS) List: On or in compliance with the inventory.
 China Inv. Existing Chemical Substances: On or in compliance with the inventory.
 Korea Existing Chemicals Inv. (KECI): On or in compliance with the inventory.
 Philippines PICCS: On or in compliance with the inventory.
 US TSCA Inventory: On or in compliance with the inventory.
 New Zealand Inventory of Chemicals: On or in compliance with the inventory.
 Taiwan Chemical Substance Inventory: On or in compliance with the inventory.

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

Seveso Category - Directive 2012/18/EU: None

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

<u>Product</u>		
Point	3 - 40	
<u>Contained substance</u>		
Point	75	
Point	70	OCTAMETHYLCYCLOTETRAILOXANE REACH Reg.: 01-2119529238-36

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
Not applicable

SECTION 15. Regulatory information ... / >>

Substances in Candidate List (Art. 59 REACH)

DODECAMETHYL CYCLOHEXASILOXANE

REACH Reg.: 01-2119517435-42

OCTAMETHYLCYCLOTETRASILOXANE

REACH Reg.: 01-2119529238-36

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 1: Low hazard to waters

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
STOT SE 1	Specific target organ toxicity - single exposure, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Skin Sens. 1B	Skin sensitization, category 1B
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H361f	Suspected of damaging fertility.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)

SECTION 16. Other information ... / >>

- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

SECTION 16. Other information ... / >>**CALCULATION METHODS FOR CLASSIFICATION**

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

The following sections were modified:

02 / 03 / 04 / 08 / 09 / 11 / 12 / 13 / 15 / 16.