



To Our Customers:

The attached Safety Data Sheet (SDS) was prepared by the vendor of the product you purchased through one of our divisions. We used the manufacturer's electronic document directly or scanned a paper copy and generated a file for our automated SDS delivery system.

All statements, technical information, and recommendations contained therein are solely that of the manufacturer of the product. We at Zep Inc. did not verify the accuracy and completeness of the statements and do not warrant or guarantee the information. We provide vendor SDSs to assist our customers in their compliance efforts. The attached document is in compliance with one of the respective country regulatory requirements noted below:

The OSHA Hazard Communication Standard (in the United States)
The Hazardous Products Regulations (in Canada)

We made every effort to deliver all of the information prepared by the manufacturer. We cannot anticipate all conditions under which this information will be used. If you have any questions about the statements on the SDS, please contact the company shown on the document.

Zep Inc. assumes no liability or responsibility for loss or damage resulting from the improper use or handling of this product, from incompatible product combinations, or from the failure to follow instructions, warnings, and advisories in the manufacturer's product label and Safety Data Sheet.

Sincerely,

Product Stewardship Team
Zep Inc.

MATERIAL: TECHSIL® TIM11123(GB)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

- 1.1 Product Name:** Techsil® TIM11123(GB)
1.2 Product Use: Adhesive Sealant
1.3 Supplier: Techsil Ltd
34 Bidavon Industrial Estate
Waterloo Road
Bidford on Avon
Warwickshire
B50 4JN
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Email: sales@techsil.co.uk
1.4 Emergency Telephone: +44(0)7971 228794

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 EC Regulation 2015/830.
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:

Hazardous to the aquatic environment, chronic toxicity category 1 H410 Very toxic 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:

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment
P391 Collect spillage

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 $\geq 0.1\%$.

Contact Details

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances:

Information not relevant.

3.2 Mixtures:

Contains:

Identification. **x = Conc. %.** **Classification 1272/2008 (CLP).**

ALUMINIUM NITRIDE IN LIQUID SUSPENSION

CAS. 24304-00-5 $37 \leq x < 39.5$ Aquatic Chronic 1 H410 M=1

EC. 246-140-8

INDEX

Reg. no. 01-2120119762-58-0000

ALUMINIUM OXIDE

CAS. 1344-28-1 $31 \leq x < 33.5$

EC. 215-691-6

INDEX

Reg. no. 01-2119529248-35

DODECAMETHYL CYCLOHEXASILOXANE

CAS. 540-97-6 $0.1 \leq x < 0.2$ Substance PBT

EC. 208-762-8 Substance vPvB

INDEX.

Reg. no. 01-2119517435-42

ACETONE

CAS. 67-64-1 $0 \leq x < 0.1$ Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066

EC. 200-662-2

INDEX. 606-001-00-8

Reg. no. 01-2119471330-49

OCTAMETHYLCYCLOTETRASILOXANE

CAS. 556-67-2 $0 \leq x < 0.1$ Repr. 2 H361f, Aquatic Chronic 1 H410 M=10

EC. 209-136-7

INDEX.

Reg. no. 01-2119529238-36

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. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.

INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless 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.

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QF28 Rev 2 (June 2016)

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 firefighting 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. Check incompatibility for container material in section 7.

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 and 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: HANDLING AND STORAGE

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QF28 Rev 2 (June 2016)

Page 3 of 14

8.1 Control Parameters:

Regulatory References

CZE	Ceska Republika	Nařízení vlády č. 41/2020 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů
DEU	Deutschland	TRGS 900 – Seite 1 von 69 (Fassung 29.03.2019 ber.) – 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	Espana	Limites de exposición profesional para agentes químicos en España 2021
FIN	Suomi	HTP-VÄRDEN 2020. Koncentrationer som befunnits skadliga. SOCIAL – OCH HÄLSOVÅRDSMINISTERIETS PUBLIKATIONER 2020:25
GBR	United Kingdom	Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről
HUN	Magyarország	Decreto Legislativo 9 Aprile 2008, n.81
ITA	Italia	
NLD	Nederland	Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit
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
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
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
ROU	Romania	Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006
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
SWE	Sverige	Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1)
TUR	Türkiye	Kimyasal Maddelerle Çalışmalarda Sağlık ve Güvenlik Önlemleri Hakkında Yönetmelik 12.08.2013 / 28733
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

ALUMINIUM NITRIDE IN LIQUID SUSPENSION

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QF28 Rev 2 (June 2016)

Page 4 of 14

Health – Derived no-effect level – DNEL/DMEL

Route of exposure	Effects on consumers			Effects on workers		
	Acute local	Acute systematic	Chronic Local	Chronic systematic	Acute local	Chronic local
Inhalation						0.034 mg/m3
						0.47 mg/m3

ALUMINIUM OXIDE

Threshold Limit Value.

Type	Country	TWA/8h mg/m3	ppm	STEL/15 Mg/m3	ppm	
MAK	DEU	1.5				RESP
MAK	DEU	4				INHAL
TLV	DNK	5				
TLV	DNK	2				Som AI
VLA	ESP	10				Som AI
VLEP	FRA	10				
AK	HUN	5				AI-ra számítva
AK	HUN	2				AI-ra számítva
TLV	NOR	10				
NDS/NDSch	POL	2.5				INHAL
NDS/NDSch	POL	1.2				RESP
TLV	ROU	2		5		Aerosoli
NPEL	SVK	4				INHAL
NPEL	SVK	1.5				RESP
WEL	GBR	10				INHAL
WEL	GBR	4				RESP
TLV-ACGIH		1				AI

DODECAMETHYL CYCLOHEXASILOXANE

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

Predicted no-effect concentration – PNEC.

Normal value in fresh water sediment	2.826	mg/kg
Normal value in 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			Effects on workers		
	Acute local	Acute systematic	Chronic Local	Chronic systematic	Acute local	Chronic local
Oral				1.7 mg/kg bw/d		
Inhalation			0.3 mg/m3	2.7 mg/m3		1.22 mg/m3
						11 mg/m3

ACETONE

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QF28 Rev 2 (June 2016)

Threshold Limit Value.

Type	Country	TWA/8h mg/m ³	Ppm	STEL/15min	ppm
TLV	CZE	800	331.2	1500	621
AGW	DEU	1200	500	2400(C)	1000(C)
MAK	DEU	1200	500	2400	1000
TLV	DNK	600	250		
HTP	FIN	1200	500	1500	630
VLEP	FRA	1210	500	2420	1000
WEL	GBR	1210	500	3620	1500
AK	HUN	1210			
VLEP	ITA	1210	500		
TGG	NLD	1210		2420	
TLV	NOR	295	125		
NDS/NDSch	POL	600		1800	
VLE	PRT	1210	500		
TLV	ROU	1210	500		
NPEL	SVK	1210	500		
NGV/KGV	SWE	600	250	1200 (C)	500(C)
ESD	TUR	1210	500		
OEL	EU	1210	500		
TLV-ACGIH			250		500

Predicted no-effect concentration – PNEC.

Normal value in fresh water	10.6	mg/l
Normal value in marine water	1.06	mg/l
Normal value of STP microorganisms	100	mg/kg

Health – Derived no-effect level – DNEL/DMEL

Route of exposure	Effects on consumers			Effects on workers				
	Acute local	Acute systematic	Chronic Local	Chronic systematic	Acute local	Acute systematic	Chronic local	Chronic systematic
Oral							VND	62 mg/kg bw/d
Inhalation			VND	200 mg/m ³			VND	1210 mg/m ³
Skin			VND	62 mg/kg bw/d			VND	186 mg/kg bw/d

OCTAMETHYLTETRACYCLOSILOXANE

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QF28 Rev 2 (June 2016)

Page 6 of 14

Threshold Limit Value.

Type	Country	TWA/8h mg/m ³	Ppm	STEL/15min	Ppm
OEL	EU		10		RESP

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				Acute local	Effects on workers		
	Acute local	Acute systematic	Chronic Local	Chronic systematic		Acute systematic	Chronic local	Chronic systematic
Inhalation	61 mg/m ³	305 mg/m ³	61 mg/m ³	305 mg/m ³				

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.

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 I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard 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 B 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 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.

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QF28 Rev 2 (June 2016)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

Appearance	:	Pasty Liquid
Colour	:	Grey
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	:	165877 cSt (23°C)
Dynamic viscosity	:	350000 mPa s (23°C)
Solubility	:	immiscible with water
Partition coefficient: n-octanol/water	:	Not available
Vapour pressure	:	Not available
Density and/or relative density	:	2.11
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) 3.24 % - 68.44 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.
ACETONE: decomposes under the effect of heat.

10.2 Chemical Stability:

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

10.3 Possibility of Hazardous Reactions:

No hazardous reactions are foreseeable in normal conditions of use and storage.

ACETONE: Risk of explosion on contact with: bromine trifluoride, fluorine dioxide, hydrogen peroxide, nitrosyl chloride, 2-methyl-1,3 butadiene, nitromethane, nitrosyl perchlorate. May react dangerously with: potassium tert-butoxide, alkaline hydroxides, bromine, bromoform, isoprene, sodium, sulphur dioxide, chromium trioxide, chromyl chloride, nitric acid, chloroform, peroxymonosulphuric acid, phosphoryl oxychloride, chromosulphuric acid, fluorine, strong oxidising agents, strong reducing agents. Develops flammable gases with nitrosyl perchlorate.

10.4 Conditions to Avoid:

None in particular. However the usual precautions used for chemical products should be respected.
ACETONE: Avoid exposure to sources of heat and naked flames.

10.5 Incompatible Materials:

ACETONE: Incompatible with: acids and oxidising substances.

10.6 Hazardous Decomposition Products:

ACETONE: May develop: ketenes, irritant substances.

SECTION 11: TOXICOLOGICAL INFORMATION

Contact Details

11.1 Information on Toxicological Effects:

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.

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

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

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	Not classified (no significant component)

ALUMINIUM NITRIDE IN LIQUID SUSPENSION

LD50 (Oral)	>2000 mg/kg Rat, male
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ALUMINIUM OXIDE

LD50 (Oral)	>5000 mg/kg Rat
LD50 (Inhalation mists/powders)	>2.3mg/l/4h Rat – Male, Female

ACETONE

LD50 (Dermal)	>7400 mg/kg (Rat)
LD50 (Oral)	5800mg/kg

OCTAMETHYLTETRACYCLOSILOXANE

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

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

Respiratory sensitization

Information not available

Skin sensitization

Information not available

GERM CELL MUTAGENICITY

Contact Details

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

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 highly toxic for aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1 Toxicity:

ALUMINIUM NITRIDE IN LIQUID SUSPENSION

LC50 - for Fish.	6.17 mg/l/96h (Onocorhynchus mykiss rainbow trout)
EC50 - for Crustacea.	3.9 mg/l/48h (Daphnia magna water flea)
EC50 - for Algae / Aquatic Plants.	10.9 mg/l/72h (Desmododesmus subspicatus)
Chronic NOEC for Fish.	0.013 mg/l

ALUMINIUM OXIDE

LC50 – for Fish	>218.64 mg/l/96h Fish – Pimephales promelas
EC50 – for Crustacea	1.9 mg/l/48h Daphnia Ceriodaphnia dubia
Chronic NOEC for Fish	4.7 mg/l Fish – Pimephales promelas

ACETONE

LC50 - for Fish.	6210 mg/l/96h
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QF28 Rev 2 (June 2016)

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

12.2 Persistence and Degradability:

ALUMINIUM OXIDE

Solubility in water < 2E-05 mg/l

ACETONE

Rapidly degradable.

12.3 Bioaccumulative Potential:

ACETONE

Partition coefficient: n-octanol/water. -0.23

BCF. 3

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 Other Adverse Effects:

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.

Waste transportation may be subject to ADR restrictions.

CONTAMINATED PACKAGING

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

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number:

ADR / RID, IMDG, IATA: 3082

ADR/RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity of ≤ 5kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity ≤ 5kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity ≤ 5 kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2 UN Proper Shipping Name:

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QF28 Rev 2 (June 2016)

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALUMINIUM NITRIDE IN LIQUID SUSPENSION; OCTAMETHYLCYCLOTETRASILOXANE)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALUMINIUM NITRIDE IN LIQUID SUSPENSION; OCTAMETHYLCYCLOTETRASILOXANE)
IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (ALUMINIUM NITRIDE IN LIQUID SUSPENSION; OCTAMETHYLCYCLOTETRASILOXANE)

14.3 Transport Hazard Class(es):

ADR/RID: Class 9 Label 9
IMDG: Class 9 Label 9
IATA: Class 9 Label 9

14.4 Packing Group:

ADR/RID, IMDG, IATA: III

14.5 Environmental Hazards:

ADR/RID: Environmentally Hazardous.
IMDG: Marine Pollutant.
IATA: Environmentally Hazardous.

14.6 Special Precautions for User:

ADR/RID:	HIN – Kemler: 90	Limited Quantities: 5L	Tunnel restriction code: (-)
IMDG:	EMS: F-A, S-F	Limited Quantities: 5L	
IATA:	Cargo:	Maximum Quantity: 450L	Packaging instructions 964
	Passenger:	Maximum Quantity: 450L	Packaging instructions 964
	Special instructions	A97, A158, A197, A215	

14.7 Transport in Bulk According to Annex II of MARPOL73/78 and the IBC Code:

Information not relevant.

SECTION 15: REGULATORY INFORMATION

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.

15.1 Safety, Health & Environmental Regulations/Legislation Specific for the Substance or Mixture:

Seveso category – Directive 2012/18/EC. E1

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

Product
Point. 3-40
Contained substance
Point 75

Substances in Candidate List (Art.59 REACH).
DODECAMETHYL CYCLOHEXASILOXANE
Reg. no.: 01-2119517435042

OCTAMETHYLTETRACYCLOSILOXANE
Reg. no.: 01-2119529238-36
Substances subject to authorisation (Annex XIV REACH)
None.
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

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QF28 Rev 2 (June 2016)

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention

None

Healthcare controls

Information not available

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

WGK 2: 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
Eye Irrit. 2	Eye irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
H225	Highly flammable liquid and vapour.
H361f	Suspected of damaging fertility.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H410	Very toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

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)
- 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

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QF28 Rev 2 (June 2016)

- 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

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2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
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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
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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 (Isituto Superiore di Sanita) - Italy

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