Zh	Revision nr. 3 Dated 27/01/2016	
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SECTION 1. Identification of the s	Safety data sheet ubstance/mixture and of the company/ur	odertaking
		lueitaking
<u>1.1. Product identifier</u> Code: Product name	C100700, C100720, C100730, C100740, C400798, C INDURENT GEL	400818
1.2. Relevant identified uses of the substanceIntended useFor professional	or mixture and uses advised against use only. Catalyst for condensation silicone.	
<u>1.3. Details of the supplier of the safety data s</u> Name Full address District and Country	Zhermack S.p.a Via Bovazecchino 100 45021 Badia Polesine (RO) Italy Tel. +39 0425-597611	
e-mail address of the competent person responsible for the Safety Data Sheet	Fax +39 0425-597689 msds@zhermack.com	
<u>1.4. Emergency telephone number</u> For urgent inquiries refer to	UK Emergency number: 844 892 0111 (24 hours)	
SECTION 2. Hazards identification	1.	
2.1. Classification of the substance or mixture	<u>.</u>	
	to the provisions set forth in EC Regulation 1272/2008 (CLP stances in concentrations such as to be declared in section 1907/2006 and subsequent amendments.	
2.2. Label elements.		
Hazard labelling pursuant to EC Regulation 1272/20	08 (CLP) and subsequent amendments and supplements.	
Hazard pictograms:		
Signal words:		
Hazard statements:		
EUH210Safety data sheet avaEUH208Contains: CARVONE	ilable on request. (ISO). May produce an allergic reaction.	
Precautionary statements:		

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2.3. Other hazards.			
On the basis of available data, the product do	es not contain any PBT or	vPvB in percentage greater than 0,1%.	
SECTION 3. Composition/info	ormation on ingred	lients.	
3.1. Substances.			
nformation not relevant.			
<u>3.2. Mixtures.</u>			
Contains:			
Identification.	Conc. %.	Classification 1272/2008 (CLP).	
TRIMETHOXYPROPYLSILANE			
CAS. 1067-25-0	0 - 10	Flam. Liq. 3 H226, Skin Irrit. 2 H315	
EC. 213-926-7			
INDEX			
Reg. no. 01-2119972314-37-XXXX			
DIOCTYLTIN OXIDE			
CAS. 870-08-6	5 - 10	STOT SE 2 H371	
EC. 212-791-1			
INDEX			
Reg. no. 01-2119971268-27-XXXX			
ETHYL SILICATE			
CAS. 78-10-4	3 - 5	Flam. Liq. 3 H226, Acute Tox. 4 H33	32, Eye Irrit. 2 H319, STOT SE
EC. 201-083-8		3 H335	
INDEX. 014-005-00-0			
Reg. no. 01-2119496195-28-XXXX			
CARVONE (ISO)			
	0,4 - 0,6	Acute Tox. 4 H302, Skin Sens. 1 H3	17
CAS. 99-49-0			
EC. 202-759-5			

Note: Upper limit is not included into the range.

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. Get medical advice/attention immediately. Wash contaminated clothing before

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

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

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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.

For symptoms and effects caused by the contained substances, see chap. 11.

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

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE Excess pressure may form in containers exposed to fire at a risk of explosion. 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.

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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 any incompatibilities.

Store only in the original container. Store in a 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	Nařízení vlády č. 361/2007 Sb. kterým se stanoví podmínky ochrany zdraví při práci
DEU	Deutschland	MAK-und BAT-Werte-Liste 2012
DNK	Danmark	Graensevaerdier per stoffer og materialer
ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
FIN	Suomi	HTP-arvot 2012. Haitallisiksi tunnetut pitoisuudet - Sosiaali- ja terveysministeriön julkaisuja 2012:5
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
NLD	Nederland	Databank of the social and Economic Concil of Netherlands (SER) Values,

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						Pri			
							Pa	ge n. 5/13	
NOR POL	Norge Polska TLV-ACGII	Н		om Administ ADZENIE MI 2011r				beidsatmosfa DŁECZNEJ z	
	YPROPYLSILA								
Normal value fo Normal value fo Normal value of		ediment ent release isms			1,49 0,149 5,6 0,56 14,9 10 0,25		mg/ mg/ mg/ mg/ mg/ mg/ mg/	l kg l	
Health - Deri	ved no-effect l	evel - DNEL / I Effects on consumers.		Chronic local	Chronic	Effects on workers Acute local	Acute	Chronic local	Chronic
Route of exposi	uie	Acute local	Acute systemic		systemic	Acute local	systemic	Chironic local	systemic
Oral. Inhalation.		VND	154,17 mg/m3	VND VND	1,26 mg/kg/d 30,25 mg/m3			VND	123,82
Skin.		VND	134,17 mg/m3	VND	8,77 mg/kg/d			VND	mg/m3 17,86 mg/kg/d
		- PNEC							
Predicted no-ef Normal value in Normal value in Normal value fo	fect concentration fresh water marine water or water, intermitte	ent release			0,0000018 0,00000018 0,000018		mg/ mg/ mg/	l	
Predicted no-ef Normal value in Normal value in Normal value fo Health - Deri	fect concentration of fresh water of marine water or water, intermitte ved no-effect	ent release	DMEL		0,0000018	Effects on workers	mg/	l	
Predicted no-ef Normal value in Normal value in Normal value fo Health - Deri	fect concentration of fresh water of marine water or water, intermitte ved no-effect	ent release evel - DNEL / I Effects on	DMEL Acute systemic	Chronic local	0,0000018 0,000018 Chronic		mg/ mg/	l	Chronic systemic
Predicted no-ef Normal value in Normal value in Normal value fo Health - Deri Route of exposi	fect concentration of fresh water of marine water or water, intermitte ved no-effect	ent release evel - DNEL / I Effects on consumers.		Chronic local VND	0,0000018 0,000018 Chronic systemic 0,0005	workers	mg/ mg/		Chronic systemic
Predicted no-ef Normal value in Normal value in Normal value fc Health - Derri Route of exposi Dral.	fect concentration of fresh water of marine water or water, intermitte ved no-effect	ent release evel - DNEL / I Effects on consumers.			0,0000018 0,00018 Chronic systemic 0,0005 mg/kg/d 0,0009	workers	mg/ mg/		systemic
Predicted no-ef Normal value in Normal value in Normal value fo Health - Deri Route of expose Dral. nhalation.	fect concentration of fresh water of marine water or water, intermitte ved no-effect	ent release evel - DNEL / I Effects on consumers.		VND	0,0000018 0,000018 Chronic systemic 0,0005 mg/kg/d	workers	mg/ mg/	Chronic local	systemic 0,004 mg/m3
Predicted no-ef Normal value in Normal value in Normal value fo Health - Deri Route of expose Oral. Inhalation. Skin.	fect concentration of fresh water of marine water or water, intermitte ved no-effect h ure	ent release evel - DNEL / I Effects on consumers.		VND VND	0,0000018 0,00018 Chronic systemic 0,0005 mg/kg/d 0,0009 mg/m3 0,025	workers	mg/ mg/	Chronic local	
Predicted no-ef Normal value in Normal value in Normal value fo Health - Deri Route of expose Dral. nhalation. Skin. ETHYL SILIC Inreshold Li	fect concentration of fresh water of marine water or water, intermitte ved no-effect h ure	ent release evel - DNEL / I Effects on consumers.		VND VND	0,0000018 0,00018 Chronic systemic 0,0005 mg/kg/d 0,0009 mg/m3 0,025	workers	mg/ mg/	Chronic local	systemic 0,004 mg/m3
Predicted no-ef Normal value in Normal value in Normal value for Health - Derri Route of expose Dral. Dral. Skin. ETHYL SILIC Threshold Li Type	fect concentration of fresh water of marine water or water, intermitte ved no-effect h ure	ent release evel - DNEL / I Effects on consumers. Acute local	Acute systemic TWA/8h mg/m3	VND VND	0,00000018 0,000018 Chronic systemic 0,0005 mg/kg/d 0,0009 mg/m3 0,025 mg/kg/d STEL/15min mg/m3	workers	mg/ mg/	Chronic local	systemic 0,004 mg/m3
Predicted no-ef Normal value in Normal value in Normal value fo Health - Deri Route of expose Dral. nhalation. Skin. ETHYL SILIC Inreshold Li Type	fect concentration of fresh water of marine water or water, intermitte ved no-effect h ure	ent release evel - DNEL / I Effects on consumers. Acute local Country CZE	Acute systemic TWA/8h mg/m3 50	VND VND VND	0,0000018 0,00018 Chronic systemic 0,0005 mg/kg/d 0,009 mg/m3 0,025 mg/kg/d STEL/15min mg/m3 200	ppm	mg/ mg/	Chronic local	systemic 0,004 mg/m3
Predicted no-ef Normal value in Normal value in Normal value for Normal va	fect concentration of fresh water of marine water or water, intermitte ved no-effect h ure	ent release evel - DNEL / I Effects on consumers. Acute local Country CZE DEU	Acute systemic TWA/8h mg/m3 50 12	VND VND VND ppm	0,00000018 0,000018 Chronic systemic 0,0005 mg/kg/d 0,0009 mg/m3 0,025 mg/kg/d STEL/15min mg/m3 200 12	ppm 1,4	mg/ mg/	Chronic local	systemic 0,004 mg/m3
Predicted no-ef Normal value in Normal value in Normal value for Health - Derri Route of expose Dral. nhalation. Skin. ETHYL SILIC Threshold Li Type FLV AGW MAK	fect concentration of fresh water of marine water or water, intermitte ved no-effect h ure	ent release evel - DNEL / I Effects on consumers. Acute local Country CZE DEU DEU	Acute systemic TWA/8h mg/m3 50 12 86	VND VND VND 1,4 10	0,0000018 0,00018 Chronic systemic 0,0005 mg/kg/d 0,009 mg/m3 0,025 mg/kg/d STEL/15min mg/m3 200	ppm	mg/ mg/	Chronic local	systemic 0,004 mg/m3
Predicted no-ef Normal value in Normal value in Normal value fo Health - Deri Route of expose Dral. nhalation. Skin. ETHYL SILIC Inreshold Li Type FLV AGW MAK	fect concentration of fresh water of marine water or water, intermitte ved no-effect h ure	ent release evel - DNEL / I Effects on consumers. Acute local Country CZE DEU DEU DEU DNK	Acute systemic TWA/8h mg/m3 50 12 86 85	VND VND VND 1,4 10 10	0,00000018 0,000018 Chronic systemic 0,0005 mg/kg/d 0,0009 mg/m3 0,025 mg/kg/d STEL/15min mg/m3 200 12	ppm 1,4	mg/ mg/	Chronic local	systemic 0,004 mg/m3
Predicted no-ef Normal value in Normal value in Normal value for Normal va	fect concentration of fresh water of marine water or water, intermitte ved no-effect h ure	ent release evel - DNEL / I Effects on consumers. Acute local Country CZE DEU DEU DEU DNK ESP	Acute systemic TWA/8h mg/m3 50 12 86 85 85 87	VND VND VND 1,4 10 10 10	0,0000018 0,00018 Chronic systemic 0,0005 mg/kg/d 0,0009 mg/m3 0,025 mg/kg/d STEL/15min mg/m3 200 12 86	ppm 1,4 10	mg/ mg/	Chronic local	systemic 0,004 mg/m3
Predicted no-ef Normal value in Normal value in Normal value for Health - Deri Route of expose Dral. nhalation. Skin. ETHYL SILIC Threshold Li Type TLV AGW MAK TLV VLA HTP	fect concentration of fresh water of marine water or water, intermitte ved no-effect h ure	ent release evel - DNEL / I Effects on consumers. Acute local Country CZE DEU DEU DEU DNK ESP FIN	Acute systemic TWA/8h mg/m3 50 12 86 85 85 87 86	VND VND VND 1,4 10 10 10 10	0,00000018 0,000018 Chronic systemic 0,0005 mg/kg/d 0,0009 mg/m3 0,025 mg/kg/d STEL/15min mg/m3 200 12	ppm 1,4	mg/ mg/	Chronic local	systemic 0,004 mg/m3
Predicted no-ef Normal value in Normal value in Normal value fo Health - Deri Route of expose Dral. nhalation. Skin. ETHYL SILIC Threshold Li Type TLV AGW MAK TLV VLA HTP VLEP	fect concentration of fresh water of marine water or water, intermitte ved no-effect h ure	ent release evel - DNEL / I Effects on consumers. Acute local Country CZE DEU DEU DEU DNK ESP FIN FRA	Acute systemic TWA/8h mg/m3 50 12 86 85 87 86 85 87 86 85	VND VND VND 1,4 10 10 10	0,0000018 0,00018 Chronic systemic 0,0005 mg/kg/d 0,0009 mg/m3 0,025 mg/kg/d STEL/15min mg/m3 200 12 86	ppm 1,4 10	mg/ mg/	Chronic local	systemic 0,004 mg/m3
Predicted no-ef Normal value in Normal value in Normal value fo Health - Deri Route of expose Oral. Inhalation. Skin. ETHYL SILIC Threshold Li Type TLV AGW MAK TLV VLA HTP VLEP OEL	fect concentration of fresh water of marine water or water, intermitte ved no-effect h ure	ent release evel - DNEL / I Effects on consumers. Acute local Country CZE DEU DEU DEU DNK ESP FIN FRA NLD	Acute systemic TWA/8h mg/m3 50 12 86 85 85 87 86 85 87 86 85 10	VND VND VND 1,4 10 10 10 10 10 10	0,0000018 0,00018 Chronic systemic 0,0005 mg/kg/d 0,0009 mg/m3 0,025 mg/kg/d STEL/15min mg/m3 200 12 86	ppm 1,4 10	mg/ Mg/	Chronic local	systemic 0,004 mg/m3
Normal value in Normal value in Normal value for Health - Deri Route of expose Oral. Inhalation. Skin. ETHYL SILIC Threshold LI Type TLV AGW MAK TLV VLA HTP VLEP OEL TLV	fect concentration of fresh water of marine water or water, intermitte ved no-effect h ure	ent release evel - DNEL / I Effects on consumers. Acute local Country CZE DEU DEU DEU DNK ESP FIN FRA NLD NOR	Acute systemic TWA/8h mg/m3 50 12 86 85 87 86 85 87 86 85	VND VND VND 1,4 10 10 10 10	0,0000018 0,00018 Chronic systemic 0,0005 mg/kg/d 0,0009 mg/m3 0,025 mg/kg/d STEL/15min mg/m3 200 12 86	ppm 1,4 10	mg/ mg/	Chronic local	systemic 0,004 mg/m3
Predicted no-ef Normal value in Normal value in Normal value fo Health - Deri Route of expose Oral. Inhalation. Skin. ETHYL SILIC Threshold Li Type TLV AGW MAK TLV VLA HTP VLEP OEL	fect concentration of fresh water of marine water or water, intermitte ved no-effect h ure	ent release evel - DNEL / I Effects on consumers. Acute local Country CZE DEU DEU DEU DNK ESP FIN FRA NLD	Acute systemic TWA/8h mg/m3 50 12 86 85 85 87 86 85 87 86 85 10	VND VND VND 1,4 10 10 10 10 10 10	0,0000018 0,00018 Chronic systemic 0,0005 mg/kg/d 0,0009 mg/m3 0,025 mg/kg/d STEL/15min mg/m3 200 12 86	ppm 1,4 10	mg/ Mg/	Chronic local	systemic 0,004 mg/m3

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			<u> </u>			Page	n. 6/13	
Normal value in fresh water	r			0,19		mg/l		
Normal value in marine wat				0,019		mg/l		
Normal value for fresh wate				0,83		mg/kg		
Normal value for marine wa Normal value for water, inte				0,083 10		mg/kg mg/l]	
Normal value of STP micro				4000		mg/l		
Normal value for the terrest				0,05		mg/kg	9	
Health - Derived no-eff	fect level - DNEL / D	MEL						
	Effects on consumers.				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation.	14 mg/m3	14 mg/m3	14 mg/m3	14 mg/m3		-	85 mg/m3	85 mg/m3
Skin.	VND	3 mg/kg/d	VND	3 mg/kg/d	VND	56 mg/kg/d	VND	56 mg/kg/d

Leaend:

(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.

HAND PROTECTION

In the case of prolonged contact with the product, protect the hands with penetration-resistant work gloves (see standard EN 374). Work glove material must be chosen according to the use process and the products that may form. Latex gloves may cause sensitivity reactions.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC 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, wear a mask with a type AX filter, whose limit of use will be defined by the manufacturer (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 opencircuit 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.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	gel
Colour	red
Odour	mint
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.

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Initial boiling point. Boiling range. Flash point. Evaporation Rate Flammability of solids and gases Lower inflammability limit. Upper inflammability limit. Lower explosive limit. Upper explosive limit. Vapour pressure. Vapour density Relative density. Solubility Partition coefficient: n-octanol/water Auto-ignition temperature. Decomposition temperature. Viscosity Explosive properties Oxidising properties

Not available. Not available. 63,9 °C. Not available. not applicable Not available. Not available. Not available. Not available. Not available. Not available. 0,94 Kg/l insoluble in water Not available. Not available. Not available. Not available. Not available. Not available.

9.2. Other information.

Information not available.

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. Avoid moisture.

10.5. Incompatible materials.

Avoid strong oxidants.

10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, silica, carbon dioxide, traces of incompletely burned carbon compounds, formaldehyde may be released. Reacts with water, releasing alcohols.

Revision nr. 3 Zhermack S.p.a Dated 27/01/2016 Printed on 27/01/2016 C100700, C100720, C100730, C100740, C400798, C400818 **INDURENT GEL** Page n. 8/13 **SECTION 11. Toxicological information.** 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. This product contains sensitizing substance/s and may cause allergic reactions. TRIMETHOXYPROPYLSILANE LD50 (Oral).> 5170 mg/kg (OECD 401, rat, dossier ECHA). LC50 (Inhalation).22,2 mg/l/4h (OECD 403, rat, dossier ECHA). Acute toxicity: Dermal: No data available. Irritation/Corrosion Skin irritation: Irritating (OECD 404, in vivo, rabbit, MSDS supplier). Eye irritation: Not irritating (OECD 405, in vivo, rabbit, MSDS supplier). Respiratory or skin Sensitization: Not sensitising (OECD 406, Buehler Test, MSDS supplier). STOT - Repeated exposure: Negative (MSDS supplier). CMR effects: Negative (MSDS supplier) Aspiration toxicity: Not toxic (MSDS supplier). DIOCTYLTIN OXIDE LD50 (Oral).> 2500 mg/kg (rat, MSDS supplier) Acute toxicity: Inhalation: No data available. Dermal: No data available. Irritation/Corrosion Skin irritation: Not irritating (SDS supplier). Eye irritation: Not irritating (SDS supplier). Respiratory or skin Sensitization: Not sensitising (SDS supplier). Single/Repeated dose toxicity: May cause damage to immune system by ingestion (single exposure) (SDS supplier). Genotoxicity: No data available. Carcinogenicity: No data available. Toxicity to reproduction: No data available. Aspiration toxicity: No data available. ETHYL SILICATE LD50 (Oral).> 2500 mg/kg (OECD TG 423, rat, MSDS supplier). LC50 (Inhalation).16 mg/l/4h (OECD 403, rat, 4h, MSDS supplier). Acute toxicity: Dermal: no data available. Irritation/ Corrosion Skin irritation: not irritant (OECD 404, rabbit, SDS supplier). Eye irritation: not irritant (OECD 405, rabbit, SDS supplier). Skin/respiratory sensitization: Not sensitizing (OECD 406, Buehler Test, SDS supplier). STOT - Single exposure: Toxic for single exposure with irritation of the respiratory tract (MSDS supplier). STOT - Repaeated exposure: Not toxic. NOAEL: 10 mg/kg (OECD TG 422, oral, rat, 28 d, MSDS supplier). STOT - Repaeated exposure: Not toxic. LOAEL: 0,43 mg/l (OECD TG 412, mouse, rat, 28 d, MSDS supplier). Genotoxicity: Negative (SDS supplier). Cancerogenicity: Negative (SDS supplier). Toxicity for reproduction: No evidence from tests on animals (SDS supplier). Aspiration toxicity: Not toxic (SDS supplier).

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity.

Revision nr. 3 Zhermack S.p.a Dated 27/01/2016 Printed on 27/01/2016 C100700, C100720, C100730, C100740, C400798, C400818 **INDURENT GEL** Page n. 9/13 LC50 - for Fish. > 746 mg/l/96h (read across, Brachydanio rerio, semi-static, freshwater, dossier ECHA) EC50 - for Crustacea. > 816 mg/l/48h (EU Method C.2, Daphnia magna, static, freshwater, dossier ECHA) > 913 mg/l/72h (EU Method C.3, Scenedesmus subspicatus, static, freshwater, dossier EC50 - for Algae / Aquatic Plants. ECHA) ETHYL SILICATE LC50 - for Fish. > 245 mg/l/96h (OECD tg 203, Brachydanio rerio, MSDS supplier). EC50 - for Crustacea. > 75 mg/l/48h (OECD TG 202, Daphnia magna, MSDS supplier). EC50 - for Algae / Aquatic > 100 mg/l/72h (OECD TG 201, Pseudokirchnerella subcapitata, MSDS supplier). Plants. Chronic NOEC for Fish. > 245 mg/l (OECD tg 203, Brachydanio rerio, MSDS supplier). > 75 mg/l (OECD TG 202, Daphnia magna, MSDS supplier). Chronic NOEC for Crustacea. Chronic NOEC for Algae / > 100 mg/l (OECD TG 201, Pseudokirchnerella subcapitata, MSDS supplier). Aquatic Plants. 12.2. Persistence and degradability. NOT rapidly biodegradable. ETHYL SILICATE Solubility in water. mg/l 1000 - 10000 Rapidly biodegradable. DIOCTYLTIN OXIDE Biodegradability: Information not available. 12.3. Bioaccumulative potential. ETHYL SILICATE Partition coefficient: n-3,18 octanol/water. BCF. 3,16

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

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12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

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.

14.1. UN 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.

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14.7. Transport in bulk accord	ling to Annex II of MAR	POL73/78 and the IBC Code.	
Information not relevant.			
SECTION 15. Regula	atory information	.	
15.1. Safety, health and env	vironmental regulations	legislation specific for the substance or mixture.	
Seveso category.	None.		
<u></u>			
Restrictions relating to the produ	uct or contained substand	ces pursuant to Annex XVII to EC Regulation 1907/2006.	
Contained substance.			
Contained Substance.			
Point.	20	DIOCTYLTIN OXIDE	
Substances in Condidate List (A			
Substances in Candidate List (A	<u>III. 59 REACH).</u>		
None.			
Substances subject to authorisa	ITION (ANNEX XIV REACH	<u>).</u>	
None.			
Substances subject to exportation	on reporting pursuant to	(EC) Reg. 649/2012:	
DIOCTYLTIN OXIDE.			
Substances subject to the Rotte	rdam Convention:		
None.			
Substances subject to the Stock	cholm Convention:		
None.			
Healthcare controls.			
Information not available.			
15.2. Chemical safety asses	<u>ssment.</u>		
No chemical safety assessment	has been processed for	the mixture and the substances it contains.	
a chomical salety assessifient	100 0001 010000000 101		

SECTION 16. Other information.

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

Flam. Liq. 3

Flammable liquid, category 3

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Acute Tox. 4	Acute toxicity, category 4
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. 1	Skin sensitization, category 1
STOT SE 2	Specific target organ toxicity - single exposure, category 2
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H317	May cause an allergic skin reaction.
H371	May cause damage to organs.
EUH210	Safety data sheet available on request.

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 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 NUMBER: 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: EC Regulation 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 STEL: Short-term exposure limit
- TWA: Time-weighted average 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 (EU) 1907/2006 (REACH) of the European Parliament
- 2. Regulation (EU) 1272/2008 (CLP) of the European Parliament
- 3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
- 4. Regulation (EU) 2015/830 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

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- 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

- ECHA website

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.

Changes to previous review: The following sections were modified: 01/ 02/ 03/ 08/ 10/ 14/ 15/ 16.