

N.P.T. S.r.I.

U-Cleaner/Activator

ΕN

Safety data sheet

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

1.1. Product identifier

Product name

U-Cleaner/Activator

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

Intended use

Cleaner/activator for glasses based on a mixture of silanes in solvent

1.3. Details of the supplier of the safety data sheet

Name	N.P.T. S.r.I.				
Full address	via Guido Rossa 2				
District and Country	40053 Valsamoggia - Loc. Crespellano (BO) Italy				
	Tel. +39 051 969109				
	Fax +39 051 969837				
e-mail address of the competent person					
responsible for the Safety Data Sheet	infoSDS@nptsrl.com				
1.4. Emergency telephone number					
For urgent inquiries refer to	Laboratories and manufactory plant - Gropello Cairoli (PV)				
	+39 0382 815132 (avaiable from Monday to Friday, only in the following office hours:				
	8.30-12.30, 13.30-17.00).				

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 1907/2006 and subsequent amendments.

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

2.1.1. Regulation 1272/2008 (CLP) and following amendments and adjustments.

Hazard classification and indication:		
Flammable liquid, category 2	H225	Highly flammable liquid and vapour.
Aspiration hazard, category 1	H304	May be fatal if swallowed and enters airways.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Skin sensitization, category 1B	H317	May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.1.2. 67/548/EEC and 1999/45/EC Directives and following amendments and adjustments.

Danger Symbols:	F-Xn-N
R phrases:	11-36/38-43-51/53-65-67

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

2.2. Label elements.

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

Hazard pictograms:





Revision nr.5 Dated 23/12/2014 Printed on 23/12/2014 Page n. 2 / 12

SECTION 2. Hazards identification. .../>>

Signal words:	Danger
Hazard statements:	
H225	nighty harmable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Precautionary statements:

ionto.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Wash hands thoroughly after handling.
Wear protective gloves / protective clothing / eye protection / face protection.
IF SWALLOWED: immediately call a POISON CENTER / doctor /
IF INHALED: remove person to fresh air and keep comfortable for breathing.
HYDROCARBONS, C7, N-ALKANES, ISOALKANES, CYCLICS
N-[3-(TRIMETHOXYSILYL)PROPYL]ETHYLENEDIAMINE.
TITANIUM N-BUTOXIDE

2.3. Other hazards.

Information not available.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identifica	tion.	Conc. %.	Classification 67/548/EEC.	Classification 1272/2008 (CLP).
HYDROC	ARBONS, C7,	N-ALKANES, IS	SOALKANES, CYCLICS	
CAS.		78 - 82	F R11, Xi R38, N R51/53, Xn R65, R67	Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Chronic 2 H411
EC.	927-510-4			
Rea no	01-211947551	15-33		
ETHYL A	CETATE	0.00		
CAS.	141-78-6	10,5 - 12	F R11, Xi R36, R66, R67	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC.	205-500-4			
INDEX.	607-022-00-5			
Reg. no.	01-211947510	03-46		
TITANIUN	I N-BUTOXIDE			
CAS.	5593-70-4	3,5 - 4	R10, Xi R37/38, Xi R41, R67	Flam. Liq. 3 H226, Eye Dam. 1 H318, Skin Irrit. 2 H315,
EC.	227-006-8			STOT SE 3 H335, STOT SE 3 H336
INDEX.				
Reg. no.	01-211996742	23-33-XXXX		
N-[3-(TRI	METHOXYSIL	YL)PROPYL]ET	HYLENEDIAMINE.	
CAS.	1760-24-3	3 - 3,5	Xn R20, Xi R41, Xi R43	Acute Tox. 4 H332, Eye Dam. 1 H318, Skin Sens. 1B H317
EC.	217-164-6			
INDEX.				
Reg. no.	01-211997021	15-39-XXXX		
CYCLOH	EXANONE			
CAS.	108-94-1	0 - 0,05	R10, Xn R20	Flam. Liq. 3 H226, Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eve Dam. 1 H318, Skin Irrit. 2 H315
EC.	203-631-1			
INDEX.	606-010-00-7			
Reg. no.	01-211945361	16-35-XXXX		
Note: Upp	er limit is not ir	ncluded into the	range.	

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

T+ = Very Toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E), F+ = Extremely Flammable(F+), F = Highly Flammable(F), N = Dangerous for the Environment(N)

ΕN



N.P.T. S.r.I.

Revision nr.5 Dated 23/12/2014 Printed on 23/12/2014 Page n. 3 / 12 ΕN

U-Cleaner/Activator

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 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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.

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. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. 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. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic



ΕN

SECTION 7. Handling and storage. ... / >>

charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. 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.

Storage class TRGS 510 (Germany): 10

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

AUS	Österreich	Grenzwerteverordnung 2011 - GKV 2011
BEL	Belgique	AR du 11/3/2002. La liste est mise à jour pour 2010
CHE	Suisse / Schweiz	Valeurs limites d'exposition aux postes de travail 2012. / Grenzwerte am Arbeitsplatz
CYP	Κύπρος	К.Δ.П. 268/2001; К.Δ.П. 55/2004; К.Δ.П. 295/2007; К.Δ.П. 70/2012
DEU	Deutschland	MAK-und BAT-Werte-Liste 2012
ESP	España	Publicación: Límites de Exposición Profesional para Agentes Químicos en Espana 2012
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
GRB	United Kingdom	EH40/2005 Workplace exposure limits
GRC	Ελλάδα	ΕΦΗΜΕΡΙΣ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ -ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 19 - 9 Φεβρουαρίου 2012
HRV	Hrvatska	NN13/09- Institut za sigurnost Zagreb
IRL	Éire	Code of Practice Chemical Agent Regulations 2011
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
SWE	Sverige	Occupational Exposure Limit Values, AF 2011:18
EU	OELEU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2012

HYDROCARBONS, C7, N-ALKANES, ISOALKANES, CYCLICS

Threshold Limit \	Value.								
Туре	Country	TWA/	′8h	STEL/15	imin				
		mg/m	3 ppm	mg/m3	ppm				
AGW	DEU	1500		3000					
TLV-ACGIH		2085	500						
Health - Derived I	no-effect leve	I - DNE	L / DMEL						
	Effec	ts on co	onsumers.			Effects on	workers		
Route of expos	sure Acute	e local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.				VND	149 mg/kg/d				
Inhalation.				VND	447 mg/m3			VND	2085 mg/m3
Skin.				VND	149 mg/kg			VND	300 mg/kg/d



N.P.T. S.r.I. **U-Cleaner/Activator**

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

	ETHYL ACETATE								
Threshold Limit V	'alue.								
Туре	Country	TWA/	8h	STEL/15	min				
		mg/m	3 ppm	mg/m3	ppm				
MAK	AUS	1050	300	2100	600				
VLEP	BEL	1461	400						
VEL	CHE	1400	400	2800	800				
MAK	CHE	1400	400	2800	800				
AGW	DEU	1500	400	3000	800				
MAK	DEU	1500	400	3000	800				
VLA	ESP	1400	400						
HTP	FIN	1100	300	1800	500				
VLEP	FRA	1400	400						
WEL	GRB		200		400				
TLV	GRC	1400	400						
GVI	HRV		200		400				
MDK	HRV	1400	400						
OEL	IRL		200		400				
MAK	SWE	500	150	1100	300				
TLV-ACGIH		1441	400						
Predicted no-effect	ct concentrat	tion - Pl	NEC.						
Normal value in fresh water						0,26	mg/l		
Normal value ir	Normal value in marine water						0,026	mg/l	
Normal value for	or fresh water	sedime	nt				1,25	mg/kg	
Normal value for	or marine wate	er sedin	nent				0,125	mg/kg	
Normal value for	or water, inter	mittent i	elease				1,65	mg/l	
Normal value o	f STP microo	rganism	S				650	mg/l	
Normal value for	or the terrestri	ial comp	artment				0,24	mg/kg	
Health - Derived n	o-effect leve	I - DNE	L/DMEL						
	Effec	ts on co	onsumers.			Effects on	workers		
Route of expos	ure Acute	e local	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic
			systemic	local	systemic	local	systemic	local	systemic
Oral.				VND	4,5 mg/kg				
Inhalation.	734		734	367	367	1468	1468	734	734
	mg/m	า3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3	mg/m3
Skin.				VND	37 ma/ka			VND	63 ma/ka

ΕN



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

				CYCLO	HEXANONE				
Threshold Limit V	alue.								
Туре	Country	TWA/8	3h	STEL/15	min				
		mg/m3	3 ppm	mg/m3	ppm				
MAK	AUS	20	5	80	20		SKIN.		
VLEP	BEL	41	10	81,6	20		SKIN.		
VEL	CHE	100	25	200	50		SKIN.		
MAK	CHE	100	25	200	50		SKIN.		
TLV	CYP	41	10	81,6	20				
AGW	DEU	80	20	80	20		SKIN.		
VLA	ESP	41	10	82	20		SKIN.		
HTP	FIN	41	10	82	20		SKIN.		
VLEP	FRA	41	10	81,6	20				
WEL	GRB	41	10	82	20		SKIN.		
TLV	GRC	200	50	400	100				
GVI	HRV	41	10	81,6	20		SKIN.		
MDK	HRV	100	25						
OEL	IRL	41	10	81,6	20		SKIN.		
TLV	ITA	41	10	81,6	20		SKIN.		
MAK	SWE	41	10	81	20		SKIN.		
OEL	EU	41	10	81,6	20		SKIN.		
TLV-ACGIH		80	20	201	50				
Predicted no-effect	ct concentrat	tion - PN	IEC.						
Normal value in	n fresh water						0,0329	mg/l	
Normal value in	n marine wate	er					0,0329	mg/l	
Normal value for	or fresh water	sedimer	nt				0,0951	mg/kg	
Normal value for	or the terrestr	ial comp	artment				0,0143	mg/kg	
Health - Derived n	o-effect leve	I - DNEL	/ DMEL						
	Effec	cts on co	nsumers.			Effects on	workers		
Route of expos	ure Acut	e local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation.								20 mg/m3	20 mg/m3
Skin.								VND	20 ma/ka 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 your hands with work gloves, category III (ref. standard EN 374). For the final choice of material you need to assess the type of use. In case of contact for the short term or as protection against splashes, use gloves made of butyl rubber or nitrile (0.4mm thickness, permeation time <30 min.). In the event of continued exposure use Viton gloves (0.4mm thickness, permeation time > 30 min.). Contaminated gloves should be removed.

SKIN PROTECTION

Wear category II 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.

Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

RESPIRATORY PROTECTION

In case of exceeding the threshold value (eg, TLV-TWA) of the substance or one or more of the substances present in the product, it is advisable to wear a mask with filter type A for organic vapors, the class (1, 2 or 3) must be chosen according to the limit concentration of use (1000, 5000 or 10000 ppm) (ref. standard EN 14387).

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.

ΕN



Revision nr.5 Dated 23/12/2014 Printed on 23/12/2014 Page n. 7 / 12

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	-	liquid	
Colour		transparent	
Odour		solvent	
Odour threshold.		Not available.	
pH.		Not available.	
Melting point / freezing point.		Not available.	
Initial boiling point.	>	35 °C.	
Boiling range.		75 - 85	
Flash point.	<	23 °C.	
Evaporation rate		Not available.	
Flammability (solid, gas)		Not available.	
Lower inflammability limit.		Not available.	
Upper inflammability limit.		Not available.	
Lower explosive limit.		Not available.	
Upper explosive limit.		Not available.	
Vapour pressure.		60 hPa	
Vapour density		> 1	
Relative density.		0,73 Kg/l	
Solubility		Not available.	
Partition coefficient: n-octanol/water		Not available.	
Auto-ignition temperature.		Not available.	
Decomposition temperature.		Not available.	
Viscosity		Not available.	
Explosive properties		Not available.	
Oxidising properties		Not available.	
9.2. Other information.			
VOC (Directive 2004/42/EC) :		99,90 % - 729,29	g/litre.
VOC (volatile carbon) :		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.

CYCLOHEXANONE: may condense under the effect of heat to form resinous compounds. Attacks various types of plastic. ETHYL ACETATE: decomposes slowly into acetic acid and ethanol under the effect of light, air and water.

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.

CYCLOHEXANONE: risk of explosion on contact with: hydrogen peroxide, nitric acid, heat, mineral acids. Can react violently with oxidising agents. Forms explosive mixtures with the air.

ETHYL ACETATE: risk of explosion on contact with: metals, alkalis, hydrides. oleum. can react violently with: fluoride, strong oxidising agents, chlorosulfuric acid, potassium tert-butoxide. Forms explosive mixtures with the air.

10.4. Conditions to avoid.

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

CYCLOHEXANONE: avoid exposure to sources of heat and naked flames. ETHYL ACETATE: avoid exposure to light, sources of heat and naked flames.

10.5. Incompatible materials.

ETHYL ACETATE: acids and bases, strong oxidising agents; aluminium and some plastics, nitrates and chlorosulphuric acid.

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.



Revision nr.5 Dated 23/12/2014 Printed on 23/12/2014 Page n. 8 / 12

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.

The introduction of even small quantities of this liquid into the respiratory system in case of ingestion or vomit may cause bronchopneumonia and pulmonary edema.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

1600 mg/kg Oryctolagus sp.

Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Vapour inhalation may slightly irritate the upper respiratory trait. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

This product contains highly volatile substances, which may cause serious depression of the central nervous system (CNS) and have negative effects, such as drowsiness, dizziness, slow reflexes, narcosis.

N-[3-(TRIMETHOXYSILYL)PROP	YLJEIHYLENEDIAWINE.
LD50 (Oral).	2704 mg/kg Rattus sp.
LD50 (Dermal).	> 2009 mg/kg Rattus sp.
LC50 (Inhalation).	1,96 mg/l Rattus sp.
CYCLOHEXANONE	
LD50 (Oral).	1535 mg/kg Rattus sp.
LD50 (Dermal).	948 mg/kg Oryctolagus sp.
LC50 (Inhalation).	8000 mg/l/4h Rattus sp.
HYDROCARBONS, C7, N-ALKAI	NES, ISOALKANES, CYCLICS
LD50 (Oral).	> 8 mg/kg Rattus sp.
LD50 (Dermal).	> 2950 mg/kg Oryctolagus sp.
LC50 (Inhalation).	> 23,3 mg/l/4h Rattus sp.
ETHYL ACETATE	
LD50 (Oral).	5620 mg/kg Rattus sp.

SECTION 12. Ecological information.

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

12.1. Toxicity.

LC50 (Inhalation).

N-[3-(TRIMETHOXYSILYL)PROPYL]ETHYLENEDIA LC50 - for Fish. EC50 - for Algae / Aquatic Plants.	MINE. 168 mg/l/96h Pimephales promelas 5 mg/l/72h
CYCLOHEXANONE LC50 - for Fish.	527 mg/l/96h Pimephales promelas
ETHYL ACETATE LC50 - for Fish.	> 212 mg/l/96h
12.2. Persistence and degradability.	
CYCLOHEXANONE Solubility in water.	mg/l 0,1 - 100
ETHYL ACETATE Solubility in water. Rapidly biodegradable.	> 10000 mg/l



Revision nr.5 Dated 23/12/2014 Printed on 23/12/2014 Page n. 9 / 12

SECTION 12. Ecological information. .../>>

12.3. Bioaccumulative potential.

CYCLOHEXANONE Partition coefficient: n-octanol/water.	0,86
ETHYL ACETATE Partition coefficient: n-octanol/water. BCF.	
12.4. Mobility in soil.	
CYCLOHEXANONE Partition coefficient: soil/water.	1,18

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%.

12.6. 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.

Avoid littering. Do not contaminate soil, sewers and waterways.

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.

These goods must be transported by vehicles authorized to the carriage of dangerous goods according to the provisions set out in the current edition of the Code of International Carriage of Dangerous Goods by Road (ADR) and in all the applicable national regulations. These goods must be packed in their original packagings or in packagings made of materials resistant to their content and not reacting dangerously with it. People loading and unloading dangerous goods must be trained on all the risks deriving from these substances and on all actions that must be taken in case of emergency situations.

Road and rail transport:

ADR/RID Class:	3	UN:	1139
Packing Group:	П		
Label:	3		
Nr. Kemler:	33		
Limited Quantity.	5 L		
Tunnel restriction code.	(D/E)		
Proper Shipping Name:	COAT	ING SOLUTI	ON

Carriage by sea (shipping):

IMO Class:	3	UN:	1139
Packing Group:	II		
Label:	3		
EMS:	F-E	, <u>S-E</u>	
Marine Pollutant.	YES		
Proper Shipping Name:	COAT	ING SOLUTIO	NC







Revision nr.5 Dated 23/12/2014 Printed on 23/12/2014 Page n. 10 / 12 ΕN

SECTION 14. Transport information. ... / >>

Transport by air:

IATA:	3	UN:	1139	
Packing Group:	П			
Label:	3			
Cargo:				3
Packaging instructions:	364		Maximum quantity:	60 L 🛛 💙
Pass.:				
Packaging instructions:	353		Maximum quantity:	5 L
Special Instructions:	A3			
Proper Shipping Name:	COA	TING SOLUT	ION	
For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.				

SECTION 15. Regulatory information.

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

 Seveso category.
 7b, 9ii

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

 Product.

 Point.
 3 - 40

 Substances in Candidate List (Art. 59 REACH).

 None.

 Substances subject to authorisarion (Annex XIV REACH).

 None.

 Substances subject to exportation reporting pursuant to (EC) Reg. 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.

 VOC (Directive 2004/42/EC):

 Preparatory and cleaning - preparatory products.

 VOC given in g/litre of product in a ready-to-use condition :

 Limit value:
 850,00

 VOC of product :
 729,29

German regulation on the classification of substances hazardous to water (VwVwS 2005). WGK 3: Severe hazard to waters

15.2. Chemical safety assessment.

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information.

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

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, 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 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.



Revision nr.5 Dated 23/12/2014 Printed on 23/12/2014 Page n. 11 / 12

SECTION 16. Other information. ... / >>

H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
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.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking

Text of risk (R) phrases mentioned in section 2-3 of the sheet:

R10	
R11 P20	
R20 R26	IDDITATING TO EVES
R30	
R30/38	IRRITATING TO ETES AND SKIN.
R37/38	IRRITATING TO RESPIRATORY SYSTEM AND SKIN.
R38	IRRITATING TO SKIN.
R41	RISK OF SERIOUS DAMAGE TO EYES.
R43	MAY CAUSE SENSITISATION BY SKIN CONTACT.
R51/53	TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC
	ENVIRONMENT.
R65	HARMFUL: MAY CAUSE LUNG DAMAGE IF SWALLOWED.
R66	REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING.
R67	VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS

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. Directive 1999/45/EC and following amendments
- 2. Directive 67/548/EEC and following amendments and adjustments
- 3. Regulation (EU) 1907/2006 (REACH) of the European Parliament
- 4. Regulation (EU) 1272/2008 (CLP) of the European Parliament
- 5. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
- 6. Regulation (EU) 453/2010 of the European Parliament
- 7. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
- 8. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament



Revision nr.5 Dated 23/12/2014 Printed on 23/12/2014 Page n. 12 / 12

SECTION 16. Other information. .../>>

- 9. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
- 10. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
- 11. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh Registry of Toxic Effects of Chemical Substances
- 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 / 07 / 08 / 09 / 10 / 11 / 12 / 16.