PLT 9 METAL: 75 RE, 76 RE, 77 RE, 78 RE, 79-050,

Revision nr. 4

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Replaced revision:3 (Dated: 03/02/2021)

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

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

#### 1.1. Product identifier

PLT 9 METAL: 75 RE, 76 RE, 77 RE, 78 RE, 79-050, Product name

UFI: VWE2-C0M1-500H-EG5D

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

Intended use Pad printing ink.

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

**COMEC ITALIA SRL** Full address Piazzale del lavoro 149 District and Country 21044 Cavaria (VA) ΙΤΔΙ ΙΔ

Tel. +39 0331 219516 Fax +39 0331 216161

e-mail address of the competent person

responsible for the Safety Data Sheet info@comec-italia.it Supplier: Edgardo Baggini

#### 1.4. Emergency telephone number

For urgent inquiries refer to CENTRO ANTIVELENI OSPEDALE NIGUARDA MILANO Tel. 02/66101029 (24/24h) -

CENTRO ANTIVELENI POLICLINICO A.GEMELL ROMA Tel. 06/3054343 (24/24h) -

#### **SECTION 2. Hazards identification**

## 2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3 H226 Flammable liquid and vapour. Serious eye damage, category 1 H318 Causes serious eye damage. Skin irritation, category 2 H315 Causes skin irritation. Specific target organ toxicity - single exposure, category 3 May cause drowsiness or dizziness. H336

Hazardous to the aquatic environment, chronic toxicity, Harmful to aquatic life with long lasting effects. H412

category 3

## 2.2. Label elements

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

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#### Hazard pictograms:







Signal words:

Danger

#### Hazard statements:

H226Flammable liquid and vapour.H318Causes serious eye damage.H315Causes skin irritation.

**H336** May cause drowsiness or dizziness.

**H412** Harmful to aquatic life with long lasting effects.

**EUH208** Contains: Phthalic anhydride with less than 0,05% of maleic anhydride

May produce an allergic reaction.

#### Precautionary statements:

**P210** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking,

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue

rinsing.

P280 Wear protective gloves/ protective clothing / eye protection / face protection.

P310 Immediately call a POISON CENTER or a doctor.

P370+P378 In case of fire: use chemical powder, CO2 or dry send to extinguish.

**P261** Avoid breathing dust, gas or vapours.

Contains: CYCLOHEXANONE

2-ETHOSSI-1-METHYL ETHYL ACETATE 2-METHOXY-1-METHYLETHYL ACETATE AROMATIC HYDROCARBONS, C9

#### 2.3. Other hazards

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

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

# **SECTION 3. Composition/information on ingredients**

### 3.2. Mixtures

#### Contains:

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

2-ETHOSSI-1-METHYL ETHYL

**ACETATE** 

INDEX 603-177-00-8  $18 \le x < 19,5$  Flam. Liq. 3 H226, STOT SE 3 H336

EC 259-370-9

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CAS 54839-24-6

REACH Reg. 01-2119475116-

39xxxx

**CYCLOHEXANONE** 

 $8,5 \le x < 10$ INDEX 606-010-00-7

Flam. Liq. 3 H226, Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4

H332, Eye Dam. 1 H318, Skin Irrit. 2 H315

LD50 Oral: 1535 mg/kg, LD50 Dermal: 1100 mg/kg, LC50 Inhalation vapours:

11 mg/l/4h

CAS 108-94-1

EC 203-631-1

REACH Reg. 01-2119453616-35-

XXXX

**AROMATIC HYDROCARBONS, C9** 

Flam. Lig. 3 H226. Asp. Tox. 1 H304. STOT SE 3 H335. STOT SE 3 H336. INDEX - $6 \le x < 7$ 

Aquatic Chronic 2 H411, EUH066, Classification note according to Annex VI

Acute Tox. 4 H302. Acute Tox. 4 H312. Acute Tox. 4 H332

to the CLP Regulation: P

EC 918-668-5

CAS -

REACH Reg. 01-2119455851-35-

xxxx

2-METHOXY-1-METHYLETHYL

**ACETATE** 

INDEX 607-195-00-7  $6 \le x < 7$ Flam. Liq. 3 H226, STOT SE 3 H336

EC 203-603-9

CAS 108-65-6

REACH Reg. 01-2119475791-29-

**BUTYLGLYCOL ACETATE** 

INDEX 607-038-00-2  $6 \le x < 7$ 

EC 203-933-3

LD50 Oral: 1880 mg/kg, LD50 Dermal: 1500 mg/kg, STA Inhalation vapours:

11 mg/l

CAS 112-07-2

REACH Reg. 01-2119475112-

47xxxx

**ALUMINIUM POWDER** 

(STABILIZED)

INDEX 013-002-00-1  $4.5 \le x < 5$ Flam. Sol. 1 H228, Classification note according to Annex VI to the CLP

Regulation: T

EC 231-072-3

CAS 7429-90-5

REACH Reg. 01-2119529243-45

**BUTANOL** 

INDEX 603-004-00-6  $2 \le x < 2,5$ 

Flam. Liq. 3 H226, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315,

STOT SE 3 H335, STOT SE 3 H336

STA Oral: 500 mg/kg

FC 200-751-6 CAS 71-36-3

REACH Reg. 01-2119484630-38

HYDROCARBONS, C10-C13, nalkanes, isoalkanes, CYCLIC, <2%

AROMATIC

INDEX - $1,5 \le x < 2$  Asp. Tox. 1 H304, EUH066, Classification note according to Annex VI to the

CLP Regulation: P

EC 918-481-9

CAS -

REACH Reg. 01-2119457273-39-

**UOP-L Paste** 

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INDEX -

 $0.9 \le x < 1$ 

Substance with a community workplace exposure limit.

EC 930-915-9 CAS 1318-02-1

REACH Reg. 01-2119429034-49

Phthalic anhydride with less than 0.05% of maleic anhydride

INDEX 607-009-00-4

 $0.15 \le x < 0.17$ 

Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, STOT SE 3 H335,

Resp. Sens. 1 H334, Skin Sens. 1 H317, EUH208

STA Oral: 500 mg/kg

EC 201-607-5 CAS 85-44-9

REACH Reg. 01-2119457017-41

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

#### **SECTION 4. First aid measures**

#### 4.1. Description of first aid measures

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

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Wash contaminated clothing before using it again. INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately. INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

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

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

Information not available

## **SECTION 5. Firefighting measures**

#### 5.1. Extinguishing media

#### SUITABLE EXTINGUISHING EQUIPMENT

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

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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.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

#### 6.2. Environmental precautions

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

### 6.3. Methods and material for containment and cleaning up

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

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

#### 6.4. Reference to other sections

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

## **SECTION 7. Handling and storage**

#### 7.1. Precautions for safe handling

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

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

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

#### 7.3. Specific end use(s)

Information not available

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

#### 8.1. Control parameters

Regulatory References:

BGR България

НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ,

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СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари

Česká 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

Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte.

MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher

Arbeitsstoffe, Mitteilung 56

Danmark Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019

España Límites de exposición profesional para agentes químicos en España 2021

FRA France Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS ITA Italia Decreto Legislativo 9 Aprile 2008, n.81

Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste

lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit 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 Portugal

exposição durante o trabalho a agentes cancerígenos ou mutagénicos

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

Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea

și completarea hotărârii guvernului nr. 1.093/2006

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 **GBR** United Kingdom EH40/2005 Workplace exposure limits (Fourth Edition 2020)

Directive (EU) 2022/431; 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

### 2-ETHOSSI-1-METHYL ETHYL ACETATE

Deutschland

Nederland

Polska

România

Sverige

OEL EU

CZE

DFU

DNK

**ESP** 

NLD

PRT

POI

ROU

SWE

ĒU

Threshold Limit V	/alue							
Туре	Country	TWA/8h		STEL/15min		Remarks / Observation	ns	
		mg/m3	ppm	mg/m3	ppm			
AGW	DEU	120	20	240	40	SKIN	14	
MAK	DEU	120	20	240	40	SKIN	Hinweis	
Predicted no-effect co	oncentration - PNEC							
Normal value in fresh	water			2		mg/l		
Normal value in marir	ne water			0,8		mg/l		
Normal value for fresh	h water sediment			8,2		mg/kg		
Normal value for mari	ine water sediment			0,6		mg/kg		
Normal value for water	er, intermittent release			2		mg/l		
Normal value of STP	microorganisms			62,5		mg/kg		
Normal value for the f	food chain (secondary pois	oning)		117		mg/kg		
Normal value for the t	terrestrial compartment			0,6		mg/kg		

#### Health - Derived no-effect level - DNEL / DMEL

	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
Oral			VND	13,1 mg/kg				
Inhalation	VND	365 mg/m3	VND	181 mg/m3	VND	608 mg/m3	VND	302 mg/m3
Skin			VND	62 mg/kg			VND	103 mg/kg

### Polymer based on vinyl compounds

Threshold Limit Value						
Туре	Country	TWA/8h		STEL/15min		Remarks /
						Observations
		mg/m3	ppm	mg/m3	ppm	
VIEP	ITA	2	1			

### Health - Derived no-effect level - DNEL / DMEL

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	Effects on				Effects on			
	consumers				workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic	Acute local	Acute	Chronic local	Chronic
				systemic		systemic		systemic
Inhalation								1 ma/m3

CYCLOHEXANONE Threshold Limit Value								
Туре	Country	TWA/8h		STEL/15min		Remarks / Observation		
		mg/m3	ppm	mg/m3	ppm	Observation	1113	
TLV	BGR	40,8	10	81,6	20	SKIN		
TLV	CZE	40	9,8	80	196	SKIN		
AGW	DEU	80	20	80	20	SKIN		
TLV	DNK	41	10			SKIN	Е	
VLA	ESP	41	10	82	20	SKIN		
VLEP	FRA	40,8	10	81,6	20			
VLEP	ITA	40,8	10	81,6	20	SKIN		
TGG	NLD			50		SKIN		
VLE	PRT	40,8	10	81,6	20	SKIN		
NDS/NDSCh	POL	40		80		SKIN		
TLV	ROU	40,8	10	81,6	20	SKIN		
NGV/KGV	SWE	41	10	81	20	SKIN		
ESD	TUR	40,8	10	81,6	20	SKIN		
WEL	GBR	41	10	82	20	SKIN		
OEL	EU	40,8	10	81,6	20	SKIN		
TLV-ACGIH		80	20	201	50	SKIN		
Predicted no-effect concent	tration - PNEC							
Normal value in fresh water	r			0,1	mg	/I		
Normal value in marine wat	ter			0,01	mg	/I		
Normal value for fresh water	er sediment			0,512	mg	/kg		
Normal value for marine wa	ater sediment			0,0512	mg	/kg		
Normal value for water, inte	ermittent release			0,329	mg	/I		
Normal value of STP micro	organisms			10	mg	/I		
Normal value for the terrest	trial compartment			0,0435	mg	/kg		
Health - Derived no-eff	fect level - DNEL / Effects on consumers	DMEL			Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				1,5 mg/kg		Systemic		ЗузісіПіС
Inhalation			VND	bw/d 10 mg/m3			VND	40 mg/m3
Skin			VND	1 mg/kg bw/d			VND	4 mg/kg bw/c
AROMATIC HYDROCA								
Threshold Limit Value Type	Country	TWA/8h		STEL/15min		Remarks /		
		ma/m3	ppm	mg/m3	ppm	Observation	ons	

AROMATIC HYDRO Threshold Limit Va						
Туре	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	

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VLEP	ITA	100	20				1,2,3 trin	netilbenzene
OEL	EU	100	20				1,2,3 trin	netilbenzene
TLV-ACGIH			25				1,2,3 trin	netilbenzene
Health - Derived no-eff	fect level - DNEL / I Effects on consumers	OMEL			Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic	Acute local	Acute	Chronic local	Chronic
Oral			VND	systemic 11 mg/kg		systemic		systemic 11 mg/kg bw/d
Inhalation			VND	32 mg/m3			VND	150 mg/m3
Skin			VND	11 mg/kg			VND	25 mg/kg
2-METHOXY-1-METHY Threshold Limit Value								
Туре	Country	TWA/8h		STEL/15min			arks / ervations	
		mg/m3	ppm	mg/m3	ppm	Obse		
TLV	BGR	275	50	550	100	SKIN		
TLV	CZE	270	49,14	550	100,1	SKIN		
AGW	DEU	270	50	270	50			
MAK	DEU	270	50	270	50			
TLV	DNK	275	50			SKIN	l E	
VLA	ESP	275	50	550	100	SKIN		
VLEP	FRA	275	50	550	100	SKIN		
VLEP	ITA	275	50	550	100	SKIN		
TGG	NLD	550						
VLE	PRT	275	50	550	100	SKIN		
NDS/NDSCh	POL	260		520		SKIN		
TLV	ROU	275	50	550	100	SKIN		
NGV/KGV	SWE	275	50	550	100	SKIN		
ESD	TUR	275	50	550	100	SKIN		
WEL	GBR	274	50	548	100	SKIN		
OEL	EU	275	50	550	100	SKIN		
Predicted no-effect concent	tration - PNEC							
Normal value in fresh water	r			0,635	mç	g/l		
Normal value in marine wat	ter			0,0635	mç	g/l		
Normal value for fresh water	er sediment			3,29	mg	g/kg		
Normal value for marine wa	ater sediment			0,329	mç	g/l		
Normal value for water, inte	ermittent release			6,35	mç	g/l		
Normal value of STP micro	organisms			100	mç	g/l		
Normal value for the terrest	trial compartment			0,29	mg	g/kg		
Health - Derived no-eff	fect level - DNEL / I Effects on consumers	OMEL			Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	1,67 mg/kg				
Inhalation			33 mg/m3	33 mg/m3	550 mg/m3		VND	275 mg/m3

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 Skin
 VND
 54,8 mg/kg
 VND
 153,5 mg/kg

Туре	Country	TWA/8h		STEL/15min		Remarks / Observati		
		mg/m3	ppm	mg/m3	ppm			
ΓLV	BGR	133	20	333	50	SKIN		
TLV	CZE	130	19,5	300	45	SKIN		
AGW	DEU	65	10	130 (C)	20 (C)	SKIN	11	
MAK	DEU	66	10	132	20	SKIN	Hinweis	
TLV	DNK	134	20			SKIN	E	
VLA	ESP	133	20	333	50	SKIN		
VLEP	FRA	66,5	10	333	50			
VLEP	ITA	133	20	333	50	SKIN		
TGG	NLD	135		333		SKIN		
VLE	PRT	133	20	333	50	SKIN		
NDS/NDSCh	POL	100		300		SKIN		
TLV	ROU	133	20	333	50	SKIN		
NGV/KGV	SWE	70	10	333	50	SKIN		
ESD	TUR	133	20	333	50	SKIN		
WEL	GBR	133	20	332	50	SKIN		
OEL	EU	133	20	333	50	SKIN		
TLV-ACGIH		131	20					
Predicted no-effect concen	tration - PNEC							
Normal value in fresh wate	r			0,304	mg,	/I		
Normal value in marine wa	ter			0,03	mg,			
Normal value for fresh wate	er sediment			2,03	mg,			
Normal value for marine wa				0,203	mg			
Normal value for water, inte				0,56	mg			
				90				
Normal value of STP micro					mg.			
Normal value for the food of		ning)		60	mg.			
Normal value for the terres	<u>'</u>			0,415	mg.	/kg/d		
Health - Derived no-ef	fect level - DNEL / Effects on	DMEL			Effects on			
Doubs of owners we	consumers Acute local	A cuto avatamia	Chronic local	Chronic	workers	Acute	Chronic local	Chronic
Route of exposure		Acute systemic	Chronic local	systemic	Acute local	systemic	Chronic local	systemic
Oral	VND	36 mg/kg/d	VND	4,3 mg/kg/d				
Inhalation	200 mg/m3	499 mg/m3	VND	80 mg/m3	333 mg/m3	773 mg/m3	VND	133 mg/m3
Skin		72 mg/kg bw/d	VND	102 mg/kg/d	102 mg/kg/d	27 mg/kg/d	VND	169 mg/kg/
ALLIMINIUM DOWNER	(CTADII IZED)							
ALUMINIUM POWDER Threshold Limit Value								
Туре	Country	TWA/8h		STEL/15min		Remarks		
		mg/m3	ppm	mg/m3	ppm	Observati	UIIS	
TLV	BGR	2						
MAK	DEU	4				INHAL		

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MAK	DEU	1,5				RESP		
TLV	DNK	5						
TLV	DNK	2				RESP		
VLA	ESP	1				RESP		
VLEP	FRA	5						
NDS/NDSCh	POL	2,5				INHAL		
NGV/KGV	SWE	5					Som Al,	Totaldamm
NGV/KGV	SWE	2				RESP	Som Al	
WEL	GBR	10				INHAL		
WEL	GBR	4				RESP		
TLV-ACGIH		1	0,9			RESP	Al	
Predicted no-effect concentra	ation - PNEC							
Normal value in fresh water				0,0749	mg	ı/I		
Normal value of STP microor	ganisms			20	mg	ı/I		
Health - Derived no-effe	ct level - DNEL / [	OMEL						
	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
Oral				3,95 mg/kg bw/d		•		•
Inhalation							3,72 mg/m3	3,72 mg/m

Туре	Country	TWA/8h		STEL/15min		Remarks / Observations	
		mg/m3	ppm	mg/m3	ppm	Observations	
TLV	BGR	100		150			
TLV	CZE	300	97,5	600	195		
AGW	DEU	310	100	310	100		
MAK	DEU	310	100	310	100		
TLV	DNK			150 (C)	50 (C)	SKIN	
VLA	ESP	61	20	154	50		
VLEP	FRA			150	50		
TGG	NLD			45			
NDS/NDSCh	POL	50		150		SKIN	
TLV	ROU	100	33	200	66		
NGV/KGV	SWE	45	15	90	30	SKIN	
WEL	GBR			154	50	SKIN	
TLV-ACGIH		61	20				
Predicted no-effect conc	entration - PNEC						
Normal value in fresh wa	ter			0,082	m	ıg/l	
Normal value in marine v	vater			0,0082	m	ıg/l	
Normal value for fresh w	ater sediment			0,178	m	ig/kg	
Normal value for marine	water sediment			0,0178	m	ig/kg	
Normal value for water, i	ntermittent release			2,25	m	ıg/l	

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Normal value of STP microorgani				2476	mg	ı/I		
Normal value for the terrestrial co								
	omparimeni			0,015	mg	ı/kg		
Health - Derived no-effect le	Effects on	MEL			Effects on			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic	workers Acute local	Acute	Chronic local	Chronic
Oral			VND	systemic 3125 mg/kg		systemic		systemic
Inhalation			55 mg/m3	VND			310 mg/m3	VND
Modified amorphous silico	n							
Гуре	Country	TWA/8h		STEL/15min		Remarks		
		mg/m3	ppm	mg/m3	ppm	Observat	ions	
/LEP	ITA	3	PP	9,	PP	INHAL		
/LEP	ITA	10				RESP		
, CEI	1170	10				REGI		
HYDROCARBONS, C10-C13 Threshold Limit Value	3, n-alkanes, is	oalkanes, CYCL	IC, <2% ARON	IATIC				
Гуре	Country	TWA/8h		STEL/15min		Remarks Observati	•	
		mg/m3	ppm	mg/m3	ppm	Observati	ions	
/LEP	FRA	275	50	550	100	SKIN		
/LEP	ITA	275	50	550	100	SKIN		
VEL	GBR	274	50	548	100	SKIN		
DEL	EU	275	50	550	100	SKIN		
LV-ACGIH		1200	184					
Health - Derived no-effect le	Effects on	MEL			Effects on			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	workers Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				300 mg/kg/d		Systemic		Systemic
nhalation				900 mg/m3				
Skin				300 mg/kg/d				300 mg/kg/d
Pigment C.I. Yellow 83								
Health - Derived no-effect le	evel - DNEL / D Effects on consumers	DMEL			Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	28 mg/kg/d				-,
nhalation							3 mg/m3	VND
Skin			VND	28 mg/kg/d	VND	45 mg/kg/d		
JOP-L Paste								
Threshold Limit Value Type	Country	TWA/8h		STEL/15min		Remarks	1	
.,,		mg/m3	ppm	mg/m3	ppm	Observati		
		1		-		RESP		

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lealth - Derived no-eff	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
Oral		5 mg/kg/d		0,8 mg/kg/d		oyotonno		Gyotolillo
nhalation		17,5 mg/m3		2,8 mg/m3		70 mg/m3		11,9 mg/m3
Skin		5 mg/kg/d		0,8 mg/kg/d	10 mg/kg/d	10 mg/kg/d		1,7 mg/kg/d
reaction mass of isom		-(3,5-di-tert-buty	-4-hydroxyphe	enyl)propionat	e			
Normal value in fresh water				0,018	mg	/I		
Normal value in marine wat				0,0018	mg			
Normal value for fresh wate				2		/kg/d		
Normal value for marine wa				0,2		/kg/d		
Normal value for water, inte				0,018	mg			
Normal value of STP micro				100	mg			
Normal value for the food cl	_	nina)		41,33	mg			
Normal value for the terrest		9/		10		/kg/d		
Health - Derived no-eff	'	OMFI		10	9	, rigra		
Todalii Borived no en	Effects on consumers	J.W.L.L			Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral				0,93 mg/kg bw/d				
nhalation				1,62 mg/m3				6,6 mg/m3
Skin				0,83 mg/kg bw/d				1,67 mg/kg bw/d
Phthalic anhydride wit Threshold Limit Value	h less than 0,05%	of maleic anhydr	ide					
Type	Country	TWA/8h		STEL/15min		Remarks Observati		
		mg/m3	ppm	mg/m3	ppm			
TLV-ACGIH		1						
TLV-ACGIH		1						
HYDROM HYDROPHO	NE SILICATE	1						
HYDROM HYDROPHO	NE SILICATE  Country	1 TWA/8h		STEL/15min		Remarks		
HYDROM HYDROPHO		TWA/8h	mag		ppm	Remarks Observati		
HYDROM HYDROPHO Threshold Limit Value	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m3	ppm	Observati		
HYDROM HYDROPHOI Threshold Limit Value Type AGW	Country	TWA/8h mg/m3	ppm		ppm	Observati INHAL		
TLV-ACGIH  HYDROM HYDROPHO Threshold Limit Value Type  AGW MAK	Country	TWA/8h mg/m3	ppm		ppm	Observati		
HYDROM HYDROPHOI Fireshold Limit Value Type  AGW  MAK  Alkyl (C12-14) dimethy	DEU DEU	TWA/8h mg/m3	ppm		ppm	Observati INHAL		
HYDROM HYDROPHOLIFINESHOLD Limit Value Type  AGW MAK  Alkyl (C12-14) dimethy Predicted no-effect concent	DEU DEU Vlamine ration - PNEC	TWA/8h mg/m3	ppm	mg/m3		Observati INHAL INHAL		
HYDROM HYDROPHO [Threshold Limit Value Type  AGW  MAK  Alkyl (C12-14) dimethy Predicted no-effect concent	DEU DEU Plamine ration - PNEC	TWA/8h mg/m3	ppm	mg/m3	mg	Observati INHAL INHAL		
HYDROM HYDROPHOLIThreshold Limit Value Type  AGW MAK  Alkyl (C12-14) dimethy Predicted no-effect concent Normal value in fresh water	DEU DEU  Plamine ration - PNEC	TWA/8h mg/m3	ppm	0,00026 0,00003	mg	Observati INHAL INHAL		
HYDROM HYDROPHO Intershold Limit Value Type  AGW MAK  Alkyl (C12-14) dimethy Predicted no-effect concent Normal value in fresh water Normal value for fresh water	DEU DEU  rlamine ration - PNEC er	TWA/8h mg/m3	ppm	0,00026 0,00003 1,25	mg mg	Observati INHAL INHAL // // /// /// //kg		
HYDROM HYDROPHOLIFINESHOLD Limit Value Type  AGW MAK  Alkyl (C12-14) dimethy Predicted no-effect concent Normal value in fresh water	DEU DEU  rlamine ration - PNEC er	TWA/8h mg/m3	ppm	0,00026 0,00003	mg	Observati INHAL INHAL // // /// /// //kg		

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	anisms			0,13	mg			
Normal value for the terrestrial compartment				1	mg	ı/kg		
Health - Derived no-effec	t level - DNEL / D Effects on consumers	DMEL			Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation				Зузюнно	1 mg/m3	Systemio	1 mg/m3	Зузіснію
Alkyl (C16-C18) dimethyl								
Normal value in fresh water				0,00026	mg	1/1		
Normal value in marine water				0,00003	mg			
Normal value for fresh water se	ediment			1,25		ı/kg		
Normal value for marine water	sediment			0,125		ı/kg		
Normal value for water, intermi	ittent release			0,00026	mg			
Normal value of STP microorga				0,13	mg			
Normal value for the terrestrial				1		ı/kg		
Health - Derived no-effec		OMEL		•		· · · · · · · · · · · · · · · · · · ·		
Dointou ilo dillo	Effects on				Effects on			
Route of exposure	consumers Acute local	Acute systemic	Chronic local	Chronic	workers Acute local	Acute	Chronic local	Chronic
Inhalation				systemic	1 mg/m3	systemic	1 mg/m3	systemic
Alkyl (C12 16) dimothylar	mino							
Alkyl (C12-16) dimethylar Predicted no-effect concentrati	on - PNEC							
Normal value in fresh water				0,00026	mg	ı/I		
Normal value in marine water				0,00003		1/1		
Normal value in manne water				0,00003	mg	,,,		
Normal value for fresh water se	ediment			1,25	mg mg			
					mg			
Normal value for fresh water so	sediment			1,25	mg	ı/kg ı/kg		
Normal value for fresh water so Normal value for marine water Normal value for water, intermi	sediment ittent release			1,25 0,125	mg mg	n/kg n/kg n/l		
Normal value for fresh water so Normal value for marine water Normal value for water, intermi Normal value of STP microorga	sediment ittent release anisms			1,25 0,125 0,00026 0,13	mg mg mg	ı/kg ı/kg ı/l		
Normal value for fresh water so Normal value for marine water Normal value for water, intermi Normal value of STP microorga	sediment ittent release anisms compartment	DMEL		1,25 0,125 0,00026	mg mg	ı/kg ı/kg ı/l		
Normal value for fresh water so Normal value for marine water Normal value for water, intermi Normal value of STP microorg.	sediment ittent release anisms compartment t level - DNEL / E Effects on	DMEL		1,25 0,125 0,00026 0,13	mg mg mg mg	ı/kg ı/kg ı/l		
Normal value for fresh water so Normal value for marine water Normal value for water, intermi Normal value of STP microorga Normal value for the terrestrial Health - Derived no-effec	sediment ittent release anisms compartment t level - DNEL / C	DMEL  Acute systemic	Chronic local	1,25 0,125 0,00026 0,13 1	mg mg mg	//kg //kg //l //l //kg	Chronic local	Chronic
Normal value for fresh water so Normal value for marine water Normal value for water, intermi Normal value of STP microorg Normal value for the terrestrial Health - Derived no-effect Route of exposure	sediment ittent release anisms compartment t level - DNEL / C Effects on consumers		Chronic local	1,25 0,125 0,00026 0,13	mg mg mg mg mg mg mg Acute local	//kg //kg //I //I		Chronic systemic
Normal value for fresh water so Normal value for marine water Normal value for water, intermi Normal value of STP microorga Normal value for the terrestrial Health - Derived no-effec	sediment ittent release anisms compartment t level - DNEL / C Effects on consumers		Chronic local	1,25 0,125 0,00026 0,13 1	mg mg mg mg mg mg mg workers	//kg //kg //l //l //kg	Chronic local 1 mg/m3	
Normal value for fresh water so Normal value for marine water Normal value for water, intermi Normal value of STP microorg. Normal value for the terrestrial Health - Derived no-effect Route of exposure Inhalation  SODIUM HYDROXIDE	sediment ittent release anisms compartment t level - DNEL / C Effects on consumers		Chronic local	1,25 0,125 0,00026 0,13 1	mg mg mg mg mg mg mg Acute local	//kg //kg //l //l //kg		
Normal value for fresh water so Normal value for marine water Normal value for water, intermi Normal value of STP microorg. Normal value for the terrestrial Health - Derived no-effect Route of exposure Inhalation  SODIUM HYDROXIDE Threshold Limit Value	sediment ittent release anisms compartment t level - DNEL / C Effects on consumers		Chronic local	1,25 0,125 0,00026 0,13 1	mg mg mg mg mg mg mg Acute local	//kg //kg //l //l //kg  Acute systemic	1 mg/m3	
Normal value for fresh water so Normal value for marine water Normal value for water, intermi Normal value of STP microorg. Normal value for the terrestrial Health - Derived no-effect Route of exposure Inhalation  SODIUM HYDROXIDE	sediment ittent release anisms compartment t level - DNEL / D Effects on consumers Acute local	Acute systemic	Chronic local	1,25 0,125 0,00026 0,13 1 Chronic systemic	mg mg mg mg mg mg mg Acute local	/kg //kg //I //I //kg  Acute systemic	1 mg/m3	
Normal value for fresh water so Normal value for marine water Normal value for water, intermi Normal value of STP microorg. Normal value for the terrestrial Health - Derived no-effec  Route of exposure Inhalation  SODIUM HYDROXIDE Threshold Limit Value Type	sediment ittent release anisms compartment t level - DNEL / D Effects on consumers Acute local	Acute systemic  TWA/8h		1,25 0,125 0,00026 0,13 1 Chronic systemic	mg mg mg mg mg mg  Effects on workers Acute local 1 mg/m3	//kg //kg //l //l //kg  Acute systemic	1 mg/m3	
Normal value for fresh water so Normal value for marine water Normal value for water, intermi Normal value of STP microorgo Normal value for the terrestrial Health - Derived no-effect Route of exposure Inhalation  SODIUM HYDROXIDE Threshold Limit Value Type	sediment ittent release anisms compartment t level - DNEL / E Effects on consumers Acute local  Country	Acute systemic  TWA/8h  mg/m3		1,25 0,125 0,00026 0,13 1 Chronic systemic	mg mg mg mg mg mg  Effects on workers Acute local 1 mg/m3	//kg //kg //l //l //kg  Acute systemic	1 mg/m3	
Normal value for fresh water so Normal value for marine water Normal value for water, intermi Normal value of STP microorge Normal value for the terrestrial Health - Derived no-effect Route of exposure Inhalation  SODIUM HYDROXIDE Threshold Limit Value Type  TLV TLV	sediment ittent release anisms compartment t level - DNEL / E Effects on consumers Acute local  Country	Acute systemic  TWA/8h  mg/m3  2		1,25 0,125 0,00026 0,13 1 Chronic systemic STEL/15min mg/m3	mg mg mg mg mg mg  Effects on workers Acute local 1 mg/m3	//kg //kg //l //l //kg  Acute systemic	1 mg/m3	
Normal value for fresh water so Normal value for marine water Normal value for water, intermi Normal value of STP microorg. Normal value for the terrestrial Health - Derived no-effec  Route of exposure Inhalation  SODIUM HYDROXIDE Threshold Limit Value Type  TLV TLV	sediment ittent release anisms compartment t level - DNEL / DEFECTS ON CONSUMERS Acute local  Country  BGR CZE	Acute systemic  TWA/8h  mg/m3  2		1,25 0,125 0,00026 0,13 1 Chronic systemic STEL/15min mg/m3	mg mg mg mg mg mg  Effects on workers Acute local 1 mg/m3	//kg //kg //l //l //kg  Acute systemic	1 mg/m3	
Normal value for fresh water so Normal value for marine water Normal value for water, intermi Normal value of STP microorg. Normal value for the terrestrial Health - Derived no-effect Route of exposure Inhalation  SODIUM HYDROXIDE Threshold Limit Value	sediment ittent release anisms compartment t level - DNEL / E Effects on consumers Acute local  Country  BGR CZE DNK	Acute systemic  TWA/8h  mg/m3  2		1,25 0,125 0,00026 0,13 1 Chronic systemic STEL/15min mg/m3	mg mg mg mg mg mg  Effects on workers Acute local 1 mg/m3	//kg //kg //l //l //kg  Acute systemic	1 mg/m3	

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NDS/NDSCh	POL	0,5	1		
NGV/KGV	SWE	1	2	INHAL	
WEL	GBR		2		
TLV-ACGIH			2 (C)		

hexadecyldimethylamine			
Predicted no-effect concentration - PNEC			
Normal value in fresh water	0,00026	mg/l	
Normal value in marine water	0,00003	mg/l	
Normal value for fresh water sediment	1,25	mg/kg	
Normal value for marine water sediment	0,125	mg/kg	
Normal value for water, intermittent release	0,00026	mg/l	
Normal value of STP microorganisms	0,13	mg/l	
Normal value for the terrestrial compartment	1	mg/kg	

Health - Derived no-effect level - DNEL / DMEL								
	Effects on				Effects on			
	consumers				workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic	Acute local	Acute	Chronic local	Chronic
				systemic		systemic		systemic
Inhalation					1 mg/m3		1 mg/m3	

#### 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 ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

### 8.2. Exposure controls

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

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

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

Provide an emergency shower with face and eye wash station.

#### HAND PROTECTION

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

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

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

#### SKIN PROTECTION

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

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

#### EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

#### RESPIRATORY PROTECTION

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

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

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

#### ENVIRONMENTAL EXPOSURE CONTROLS

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

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

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

## 9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	various	
Odour	typical of solvent	
Melting point / freezing point	not available	
Initial boiling point	> 140 °C	
Flammability	not available	
Lower explosive limit	not available	
Upper explosive limit	not available	
Flash point	23 ≤ T ≤ 60 °C	
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	not available	
Kinematic viscosity	not available	
Solubility	soluble in water and in polar solvents	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	not available	
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) 52,47 %

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## **SECTION 10. Stability and reactivity**

### 10.1. Reactivity

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

#### CYCLOHEXANONE

Attacks various types of plastic materials.

May condense under the effect of heat to form resinous compounds.

#### 2-METHOXY-1-METHYLETHYL ACETATE

Stable in normal conditions of use and storage.

With the air it may slowly develop peroxides that explode with an increase in temperature.

#### BUTANOL

Attacks various types of plastic materials.

## 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.May react violently with: oxidising agents.Forms explosive mixtures with: air.

#### 2-METHOXY-1-METHYLETHYL ACETATE

May react violently with: oxidising substances, strong acids, alkaline metals.

#### BUTANOL

Reacts violently developing heat on contact with: aluminium,strong oxidising agents,strong reducing agents,hydrochloric acid.Forms explosive mixtures with: air.

#### 10.4. Conditions to avoid

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

#### CYCLOHEXANONE

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Avoid exposure to: sources of heat,naked flames.

BUTANOL

Avoid exposure to: sources of heat,naked flames.

#### 10.5. Incompatible materials

2-METHOXY-1-METHYLETHYL ACETATE

Incompatible with: oxidising substances, strong acids, alkaline metals.

#### 10.6. Hazardous decomposition products

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

# **SECTION 11. Toxicological information**

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

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

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, toxicokinetics, mechanism of action and other information

#### 2-METHOXY-1-METHYLETHYL ACETATE

The main route of entry is the skin, whereas the respiratory route is less important due to the low vapour pressure of the product.

Information on likely routes of exposure

2-METHOXY-1-METHYLETHYL ACETATE

WORKERS: inhalation; contact with the skin.

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

## 2-METHOXY-1-METHYLETHYL ACETATE

Above 100 ppm causes irritation of the eye, nose and oropharynx mucous membranes. At 1000 ppm, disturbance of equilibrium and severe eye irritation can be noticed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and eye irritation with direct contact. No chronic effects on humans have been reported (INCR, 2010).

Interactive effects

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Information not available

## **ACUTE TOXICITY**

ATE (Inhalation - vapours) of the mixture: > 20 mg/l
ATE (Oral) of the mixture: >2000 mg/kg
ATE (Dermal) of the mixture: >2000 mg/kg

#### 2-ETHOSSI-1-METHYL ETHYL ACETATE

LD50 (Dermal): 13,42 ml/Kg Coniglio / Rabbit LD50 (Oral): > 5000 mg/kg Ratto / Rat

LC50 (Inhalation vapours): 6,99 mg/l/4h Rat

CYCLOHEXANONE

LD50 (Dermal): 1100 mg/kg 794 - 3160 / Coniglio / Rabbit

LD50 (Oral): 1535 mg/kg Ratto / Rat LC50 (Inhalation vapours): 11 mg/l/4h Ratto / Rat (4h)

AROMATIC HYDROCARBONS, C9

 LD50 (Dermal):
 > 3160 mg/kg Ratto / Rat

 LD50 (Oral):
 3492 mg/kg Ratto / Rat

 LC50 (Inhalation vapours):
 > 6193 mg/l/4h Ratto / Rat

2-METHOXY-1-METHYLETHYL ACETATE

LD50 (Dermal): > 5000 mg/kg Coniglio / Rabbit LD50 (Oral): 8500 mg/kg Ratto / Rat LC50 (Inhalation vapours): 4345 ppm/6h Ratto / Rat

**BUTYLGLYCOL ACETATE** 

LD50 (Dermal): 1500 mg/kg Coniglio / Rabbit LD50 (Oral): 1880 mg/kg Ratto / Rat LC50 (Inhalation vapours): 0,4 mg/l/4h Ratto - Rat

STA (Inhalation vapours): 11 mg/l estimate from table 3.1.2 of Annex I of the CLP

(figure used for calculation of the acute toxicity estimate of the mixture)

ALUMINIUM POWDER (STABILIZED)

LC50 (Inhalation mists/powders): > 5 mg/l Ratto / Rat (4h)

BUTANOL

 LD50 (Dermal):
 3400 mg/kg Rabbit

 LD50 (Oral):
 2290 mg/kg Rat

STA (Oral): 500 mg/kg estimate from table 3.1.2 of Annex I of the CLP

(figure used for calculation of the acute toxicity estimate of the mixture)

LC50 (Inhalation vapours): 17,76 mg/l/4h Rat

Modified amorphous silicon

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LD50 (Oral): > 5000 mg/kg Ratto / Rat

HYDROCARBONS, C10-C13, n-alkanes, isoalkanes, CYCLIC, <2% AROMATIC

 LD50 (Dermal):
 > 2000 mg/kg bw Rat

 LD50 (Oral):
 > 5000 mg/kg bw Rat

 LC50 (Inhalation vapours):
 > 5000 mg/m3 8h Rat

Pigment C.I. Yellow 83

LD50 (Oral): > 2000 mg/kg Stimato, metodo di calcolo

#### SKIN CORROSION / IRRITATION

Causes skin irritation

#### SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

#### RESPIRATORY OR SKIN SENSITISATION

May produce an allergic reaction.

Contains:

Phthalic anhydride with less than 0,05% of maleic anhydride

#### GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

## CARCINOGENICITY

Does not meet the classification criteria for this hazard class

## REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

#### STOT - SINGLE EXPOSURE

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May cause drowsiness or dizziness

## STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

#### **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 the aquatic organisms. In the long term, it have negative effects on aquatic environment. **12.1. Toxicity** 

HYDROCARBONS, C10-C13, n-alkanes, isoalkanes, CYCLIC, <2% AROMATIC

LC50 - for Fish > 1000 mg/l/96h Oncorthyncus mykiss OECD 203

EC50 - for Crustacea > 1000 mg/l/48h Daphnia magna

AROMATIC HYDROCARBONS, C9

LC50 - for Fish > 9,2 mg/l/96h Oncorhynchus mykiss EC50 - for Crustacea > 3,2 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants > 2,9 mg/l/72h Pseudokirchneriella subcapitata

2-METHOXY-1-METHYLETHYL ACETATE

LC50 - for Fish 134 mg/l/96h Pesce, Oncorhynchus mykiss OECD 203

EC50 - for Crustacea > 500 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants > 1000 mg/l/72h Selenastrum capricornutum OECD 201

Chronic NOEC for Fish 47,5 mg/l Oryzias latipes 14 gg OECD 204
Chronic NOEC for Crustacea 100 mg/l Dapnia magna 21 gg OECD 202

2-ETHOSSI-1-METHYL ETHYL ACETATE

LC50 - for Fish 140 mg/l/48h Oncorhynchus mykiss (test 48h)

EC50 - for Crustacea 110 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants > 100 mg/l/72h Scenedesmus subspicatus

**BUTANOL** 

LC50 - for Fish 1376 mg/l/96h Pimephales promelas

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EC50 - for Crustacea 1328 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants 225 mg/l/96h 96h - Selenastrum capricornutum

CYCLOHEXANONE

LC50 - for Fish 527 mg/l/96h 527 - 732 / Pimephales promelas

EC50 - for Crustacea > 100 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants > 100 mg/l/72h Scenedesmus subspicatus

**BUTYLGLYCOL ACETATE** 

LC50 - for Fish > 20 mg/l/96h Fish 20-40 mg/kg (48h) EC50 - for Crustacea 145 mg/l/24h Daphnia Magna (24h) EC50 - for Algae / Aquatic Plants 1570 mg/l/72h Scenedesmus subspicatus

Modified amorphous silicon

LC50 - for Fish > 10000 mg/l/96h Brachydanio rerio OECD 203 EC50 - for Crustacea > 10000 mg/l/24h Daphnia Magna OCSE 202 - 24 h

#### 12.2. Persistence and degradability

HYDROCARBONS, C10-C13, n-alkanes, isoalkanes, CYCLIC, <2% AROMATIC Rapidly degradable

AROMATIC HYDROCARBONS, C9

Rapidly degradable

ALUMÍNIUM POWDER (STABILIZED)

Solubility in water 0 mg/l

Degradability: information not available

2-METHOXY-1-METHYLETHYL ACETATE

Solubility in water > 10000 mg/l

Rapidly degradable

OECD GI 301F 83% 10 d 2-ETHOSSI-1-METHYL ETHYL ACETATE

Solubility in water > 10000 mg/l

Rapidly degradable

Activated sludge - 89%/15 d - 100%/28 d

**BUTANOL** 

Solubility in water 78 mg/l

Rapidly degradable CYCLÓHEXANONE

Solubility in water 86 mg/l

Rapidly degradable

**BUTYLGLYCOL ACETATE** 

Solubility in water 15000 mg/l

Rapidly degradable

Modified amorphous silicon

Solubility in water > 1 mg/l

## 12.3. Bioaccumulative potential

2-METHOXY-1-METHYLETHYL ACETATE

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Partition coefficient: n-octanol/water 1,2

BCF 100

2-ETHOSSI-1-METHYL ETHYL ACETATE

Partition coefficient: n-octanol/water 0,76 BCF 3,162

BUTANOL

Partition coefficient: n-octanol/water 1
BCF 3,16

CYCLOHEXANONE

Partition coefficient: n-octanol/water 0,86

**BUTYLGLYCOL ACETATE** 

Partition coefficient: n-octanol/water 1,51

12.4. Mobility in soil

2-METHOXY-1-METHYLETHYL ACETATE

Partition coefficient: soil/water 1,7

2-ETHOSSI-1-METHYL ETHYL ACETATE

Partition coefficient: soil/water 1

**BUTANOL** 

Partition coefficient: soil/water 0,388

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 ≥ than 0,1%.

## 12.6. Endocrine disrupting properties

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

#### 12.7. Other adverse effects

Information not available

## **SECTION 13. Disposal considerations**

## 13.1. Waste treatment methods

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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 or ID number

ADR / RID, IMDG, IATA: 1210

#### 14.2. UN proper shipping name

ADR / RID: PRINTING INK or PRINTING INK RELATED MATERIAL IMDG: PRINTING INK OR PRINTING INK RELATED MATERIAL IATA: PRINTING INK OR PRINTING INK RELATED MATERIAL

#### 14.3. Transport hazard class(es)

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3



#### 14.4. Packing group

ADR / RID, IMDG, IATA:

## 14.5. Environmental hazards

ADR / RID: NO IMDG: NO IATA: NO

#### 14.6. Special precautions for user

 ADR / RID:
 HIN - Kemler: 30
 Limited
 Tunnel

 Quantities: 5
 restriction

 L
 code: (D/E)

Special provision: 163, 367

IMDG: EMS: F-E, S-D Limited

Quantities: 5

IATA: Cargo: Maximum Packaging

quantity: 220 instructions:

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Pass:

Maximum quantity: 60 L

366 Packaging instructions: 355

Special provision:

A3, A72, A192

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

## **SECTION 15. Regulatory information**

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

Seveso Category - Directive 2012/18/EU: P5c

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

<u>Product</u>

Point 3 - 40

Contained substance

Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage ≥ than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

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

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the

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workers' health and safety are modest and that the 98/24/EC directive is respected.

#### 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. 3 Flammable liquid, category 3
Flam. Sol. 1 Flammable solid, category 1
Acute Tox. 4 Acute toxicity, category 4
Asp. Tox. 1 Aspiration hazard, category 1
Eye Dam. 1 Serious eye damage, category 1
Skin Irrit. 2 Skin irritation, category 2

STOT SE 3 Specific target organ toxicity - single exposure, category 3

Resp. Sens. 1 Respiratory sensitization, category 1

Skin Sens. 1 Skin sensitization, category 1

Aquatic Chronic 2 Hazardous to the aquatic environment, chronic toxicity, category 2

Aquatic Chronic 3 Hazardous to the aquatic environment, chronic toxicity, category 3

H226 Flammable liquid and vapour.

H228 Flammable solid.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.

H332 Harmful if inhaled.

H304 May be fatal if swallowed and enters airways.

H318 Causes serious eye damage.

H315 Causes skin irritation.

H335 May cause respiratory irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.
 H336 May cause drowsiness or dizziness.
 H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

**EUH066** Repeated exposure may cause skin dryness or cracking.

EUH208 Contains <name of sensitising substance>. May produce an allergic reaction.

## 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

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- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

#### GENERAL BIBLIOGRAPHY

- 1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
- 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
- 3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
- Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
- 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
- 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
- 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
- 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament 10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
- 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
- 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
- 13. Regulation (EU) 2017/776 (X Atp. CLP)
- 14. Regulation (EU) 2018/669 (XI Atp. CLP)
- 15. Regulation (EU) 2019/521 (XII Atp. CLP)
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- 22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
- The Merck Index. 10th Edition Handling Chemical Safety
- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology
- N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals Ministry of Health and ISS (Istituto Superiore di Sanità) Italy

#### Note for users:

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

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

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

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

### CALCULATION METHODS FOR CLASSIFICATION

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

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Page n. 27/27 Replaced revision:3 (Dated: 03/02/2021) Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11. Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12. For information on any exposure scenarios of the substances present in the mixture, contact Sericom Italia srl. Changes to previous review: The following sections were modified: 01 / 02 / 03 / 08 / 09 / 11 / 12 / 14 / 15 / 16.