Safety data sheet

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

1.1. Product identifier

Code: **C2104**
Product name **MAX - SMALTO NITRO BIANCO LUCIDO**

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

Intended use **Enamel for uniform color layers. Professional use only.**

Uses advised against: no one in particular

1.3. Details of the supplier of the safety data sheet

Name **ILPA ADESIVI SRL**
Full address **Via Ferorelli, 4**
District and Country **70132 BARI (BARI)**
ITALIA

Tel. + 39 0805383837

Fax + 39 0805377807

e-mail address of the competent person

responsible for the Safety Data Sheet **aborricelli@ilpa.it**

1.4. Emergency telephone number

For urgent inquiries refer to **+ 39 3355405598 (Technical support - 8,00 - 17,00 - LUN-VEN; MON-FRI)(Italian time zone)**
Safety Executive (HSE) Chemicals Regulation Directorate 5S.1 Redgrave Court, Merton Road, Bootle, Merseyside. L20 7HS.
Phone: +44 151 9513317

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.

Hazard classification and indication:

Flammable liquid, category 2	H225	Highly flammable liquid and vapour.
Specific target organ toxicity - repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.

2.2. Label elements.

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

Hazard pictograms:

Signal words: Danger

Hazard statements:

H225	Highly flammable liquid and vapour.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.

Precautionary statements:

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P280	Wear protective gloves / eye protection / face protection.
P312	Call a POISON CENTER / doctor / . . . / if you feel unwell.

Contains: XYLENE (MIXTURE OF ISOMERS)
N-BUTYL ACETATE
ETHYL ACETATE
ACETONE

2.3. Other hazards.

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

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**Conc. %.**	**Classification 1272/2008 (CLP).**
N-BUTYL ACETATE		
CAS. 123-86-4	28,5 - 30	Flam. Liq. 3 H226, STOT SE 3 H336, EUH066
EC. 204-658-1		

INDEX. 607-025-00-1

Reg. no. 01-2119485493-29

XYLENE (MIXTURE OF ISOMERS)

CAS. 1330-20-7	13,5 - 15	Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Note C

EC. 215-535-7

INDEX. 601-022-00-9

Reg. no. 01-2119488216-32

NITROCELLULOSE

CAS. 9004-70-0	7 - 8	Flam. Sol. 1 H228, Note T

EC. -

INDEX. 603-037-00-6

ETHYL ACETATE

CAS. 141-78-6	7 - 8	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066

EC. 205-500-4

INDEX. 607-022-00-5

Reg. no. -

ACETONE

CAS. 67-64-1	5 - 6	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066

EC. 200-662-2

INDEX. 606-001-00-8

Reg. no. -

PROPAN-2-OL

CAS. 67-63-0	4 - 4,5	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336

EC. 200-661-7

INDEX. 603-117-00-0

Reg. no. 01-2119457558-25

BUTYLGLYCOL ACETATE

CAS. 112-07-2	2,5 - 3	Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332

EC. 203-933-3

INDEX. 607-038-00-2

Reg. no. 01-2119475112-47

TOLUENE

CAS. 108-88-3	2 - 2,5	Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin Irrit. 2 H315, STOT SE 3 H336

EC. 203-625-9

INDEX. 601-021-00-3

Reg. no. -

2-BUTOXYETHANOL

CAS. 111-76-2	2 - 2,5	Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315
EC. 203-905-0		
INDEX. 603-014-00-0		
Reg. no. 01-2119475108-36		
METHYL ACETATE		
CAS. 79-20-9	1 - 1,5	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC. 201-185-2		
INDEX. 607-021-00-X		
Reg. no. -		
METHYL ETHYL KETONE		
CAS. 78-93-3	0,7 - 0,8	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
EC. 201-159-0		
INDEX. 606-002-00-3		
Reg. no. -		
METHANOL		
CAS. 67-56-1	0,35 - 0,4	Flam. Liq. 2 H225, Acute Tox. 3 H301, Acute Tox. 3 H311, Acute Tox. 3 H331, STOT SE 1 H370
EC. 200-659-6		
INDEX. 603-001-00-X		
Reg. no. -		
2-METHOXY-1-METHYLETHYL ACETATE		
CAS. 108-65-6	0,35 - 0,4	Flam. Liq. 3 H226
EC. 203-603-9		
INDEX. 607-195-00-7		
Reg. no. -		
1-METHOXY-2-PROPANOL		
CAS. 107-98-2	0,35 - 0,4	Flam. Liq. 3 H226, STOT SE 3 H336
EC. 203-539-1		
INDEX. 603-064-00-3		
Reg. no. -		
TETRAHYDROFURAN		
CAS. 109-99-9	0,15 - 0,2	Flam. Liq. 2 H225, Carc. 2 H351, Acute Tox. 4 H302, Eye Irrit. 2 H319, STOT SE 3 H335, EUH019
EC. 203-726-8		
INDEX. 603-025-00-0		
Reg. no. -		
DICHLOROMETHANE		
CAS. 75-09-2	0,15 - 0,2	Carc. 2 H351
EC. 200-838-9		
INDEX. 602-004-00-3		

Reg. no. -

CYCLOHEXANE

CAS. 110-82-7 | 0 - 0,05 | Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410

EC. 203-806-2

INDEX. 601-017-00-1

Reg. no. -

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.

PROTECTIVE MEASURES FOR THE FIRST RESCUE WORKERS: for PPE (personal protection equipment) required for first aid refer to section 8.2 of this safety data sheet.

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 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.

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 and 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
If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION
In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.
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 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.

7.3. Specific end use(s).

No use other than specified in Section 1.2 of this safety data sheet.

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
BGR	България	МИНИСТЕРСТВО НА ТРУДА И СОЦИАЛНАТА ПОЛИТИКА МИНИСТЕРСТВО НА ЗДРАВЕОПАЗВАНЕТО НАРЕДБА No 13 от 30 декември 2003 г
CHE	Suisse / Schweiz	Valeurs limites d`exposition aux postes de travail 2012. / Grenzwerte am Arbeitsplatz
CYP	Κύπρος	Κ.Δ.Π. 268/2001; Κ.Δ.Π. 55/2004; Κ.Δ.Π. 295/2007; Κ.Δ.Π. 70/2012
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
EST	Eesti	Töökeskkonna keemiliste ohutegurite piirnormid 1. Vastu võetud 18.09.2001 nr 293 RT I 2001, 77, 460 - Redaktsiooni jõustumise kp: 01.01.2008
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
GBR	United Kingdom	EH40/2005 Workplace exposure limits
GRC	Ελλάδα	ΕΦΗΜΕΡΙΣ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ -ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 19 - 9 Φεβρουαρίου 2012
HRV	Hrvatska	NN13/09 - Ministarstvo gospodarstva, rada i poduzetništva
HUN	Magyarország	50/2011. (XII. 22.) NGM rendelet a munkahelyek kémiai biztonságáról
IRL	Éire	Code of Practice Chemical Agent Regulations 2011
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
LTU	Lietuva	DĖL LIETUVOS HIGIENOS NORMOS HN 23:2007 CHEMINIŲ MEDŽIAGŲ 2007 m. spalio 15 d. Nr. V-827/A1-287
LVA	Latvija	Ķīmisko vielu aroda ekspozīcijas robežvērtības (AER) darba vides gaisā 2012
NLD	Nederland	Databank of the social and Economic Concil of Netherlands (SER) Values, AF 2011:18
NOR	Norge	Veiledning om Administrative normer for forurensning i arbeidsatmosfære
POL	Polska	ROZPORZĄDZENIE MINISTRA PRACY I POLITYKI SPOŁECZNEJ z dnia

		16 grudnia 2011r
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 20. júna 2007
SVN	Slovenija	Uradni list Republike Slovenije 15. 6. 2007
SWE	Sverige	Occupational Exposure Limit Values, AF 2011:18
TUR	Türkiye	2000/39/EC sayılı Direktifin ekidir
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2014

N-BUTYL ACETATE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	480	100	480	100	
VLEP	BEL	723	150	964	200	
TLV	BGR	710		950		
VEL	CHE	480	100	960	200	
MAK	CHE	480	100	960	200	
TLV	CZE	950		1200		
MAK	DEU	480	100	960	200	
VLA	ESP	724	150	965	200	
VLEP	FRA	710	150	940	200	
WEL	GBR	724	150	966	200	
TLV	GRC	710	150	950	200	
GVI	HRV	724	150	966	200	
AK	HUN	950		950		
OEL	IRL	710	150	950	200	
OEL	NLD	150				
TLV	NOR		75			
NDS	POL	200		950		
NPHV	SVK	480	100	960		
MAK	SWE	500	100	700	150	
TLV-ACGIH		713	150	950	200	

Predicted no-effect concentration - PNEC.

Normal value in fresh water	0,18	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	0,981	mg/kg/d
Normal value for marine water sediment	0,0981	mg/kg/d
Normal value for water, intermittent release	0,36	mg/l
Normal value of STP microorganisms	35,6	mg/l
Normal value for the terrestrial compartment	0,0903	mg/kg/d

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
Inhalation.	859,7 mg/m3	859,7 mg/m3	102,34 mg/m3	102,34 mg/m3	960 mg/m3	960 mg/m3	480 mg/m3	480 mg/m3

XYLENE (MIXTURE OF ISOMERS)

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	221	50	442	100	SKIN.

VLEP	BEL	221	50	442	100	SKIN.
TLV	BGR	221		442		SKIN.
TLV	CYP	221	50	442	100	SKIN.
TLV	CZE	200		400		SKIN.
AGW	DEU	440	100	880	200	SKIN.
MAK	DEU	440	100	880	200	SKIN.
VLA	ESP	221	50	442	100	SKIN.
TLV	EST	221	50	442	100	SKIN.
HTP	FIN	220	50	440	100	SKIN.
VLEP	FRA	221	50	442	100	SKIN.
WEL	GBR	220	50	441	100	
TLV	GRC	435	100	650	150	
GVI	HRV	221	50	442	100	SKIN.
AK	HUN	221		442		SKIN.
OEL	IRL	221	50	442	100	SKIN.
TLV	ITA	221	50	442	100	SKIN.
OEL	NLD	210		442		SKIN.
TLV	NOR	108	25			SKIN.
NDS	POL	100				
NPHV	SVK	221	50	442		SKIN.
MV	SVN	221	50			SKIN.
MAK	SWE	221	50	442	100	SKIN.
ESD	TUR	221	50	442	100	SKIN.
OEL	EU	221	50	442	100	SKIN.
TLV-ACGIH		434	100	651	150	

Predicted no-effect concentration - PNEC.

Normal value in fresh water	0,327	mg/l
Normal value in marine water	0,327	mg/l
Normal value for fresh water sediment	12,46	mg/kg/d
Normal value for marine water sediment	12,46	mg/kg/d
Normal value for water, intermittent release	0,327	mg/l
Normal value of STP microorganisms	6,58	mg/l
Normal value for the terrestrial compartment	2,31	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.			VND	1,6 mg/kg bw/d				
Inhalation.	174 mg/m3	174 mg/m3	VND	14,8 mg/m3	289 mg/m3	289 mg/m3	VND	77 mg/m3
Skin.			VND	108 mg/kg bw/d			VND	180 mg/kg bw/d

ETHYL ACETATE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	AUS	1050	300	2100	600
VLEP	BEL	1461	400		
TLV	BGR	800			
VEL	CHE	1400	400	2800	800
MAK	CHE	1400	400	2800	800

TLV	CZE	700		900	
AGW	DEU	1500	400	3000	800
MAK	DEU	1500	400	3000	800
TLV	DNK	540	150		
VLA	ESP	1460	400		
TLV	EST	500	150	1100	300
HTP	FIN	1100	300	1800	500
VLEP	FRA	1400	400		
WEL	GBR		200		400
TLV	GRC	1400	400		
GVI	HRV		200		400
AK	HUN	1400		1400	
OEL	IRL		200		400
RD	LTU	500	150	1100 (C)	300 (C)
RV	LVA	200			
OEL	NLD	550		1100	
TLV	NOR	550	150		
NDS	POL	200		600	
NPHV	SVK	1500	400	3000	
MAK	SWE	500	150	1100	300
TLV-ACGIH		1441	400		

Predicted no-effect concentration - PNEC.

Normal value in fresh water	0,24	mg/l
Normal value in marine water	0,024	mg/l
Normal value for fresh water sediment	1,15	mg/kg/d
Normal value for marine water sediment	0,115	mg/kg/d
Normal value for water, intermittent release	1,65	mg/l
Normal value of STP microorganisms	650	mg/l
Normal value for the food chain (secondary poisoning)	200	mg/kg
Normal value for the terrestrial compartment	0,148	mg/kg/d
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.			VND	4,5 mg/kg bw/d				
Inhalation.	734 mg/m3	734 mg/m3	367 mg/m3	367 mg/m3	1468 mg/m3	1468 mg/m3	734 mg/m3	734 mg/m3
Skin.			VND	37 mg/kg bw/d			VND	63 mg/kg bw/d

ACETONE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	1200	500	4800	2000	
VLEP	BEL	1210	500	2420	1000	
TLV	BGR	600		1400		
VEL	CHE	1200	500	2400	1000	
MAK	CHE	1200	500	2400	1000	
TLV	CYP	1210	500			SKIN.
TLV	CZE	800		1500		

AGW	DEU	1200	500	2400	1000				
MAK	DEU	1200	500	2400	1000				
TLV	DNK	600	250						
VLA	ESP	1210	500						
TLV	EST	1210	500						
HTP	FIN	1200	500	1500	630				
VLEP	FRA	1210	500	2420	1000				
WEL	GBR	1210	500	3620	1500				
TLV	GRC	1780		3560					
GVI	HRV	1210	500						
AK	HUN	1210		2420					
OEL	IRL	1210	500						
TLV	ITA	1210	500						
RD	LTU	1210	500	2420	1000				
RV	LVA	1210	500						
OEL	NLD	1210		2420					
TLV	NOR	295	125						
NDS	POL	600		1800					
NPHV	SVK	1210	500	2420					
MV	SVN	1210	500						
MAK	SWE	600	250	1200	500				
ESD	TUR	1210	500						
OEL	EU	1210	500						
TLV-ACGIH		1187	500	1781	750				

Predicted no-effect concentration - PNEC.		
Normal value in fresh water	10,6	mg/l
Normal value in marine water	1,06	mg/l
Normal value for fresh water sediment	30,4	mg/kg/d
Normal value for marine water sediment	3,04	mg/kg/d
Normal value for water, intermittent release	21	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	29,5	mg/kg/d

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	62 mg/kg bw/d				
Inhalation.			VND	200 mg/m3	2420 mg/m3	VND	VND	1210 mg/m3
Skin.			VND	62 mg/kg bw/d			VND	186 mg/kg bw/d

PROPAN-2-OL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	500	200	2000	800	
VLEP	BEL	500	200	1000	400	
TLV	BGR	980		1225		
TLV	CZE	500		1000		SKIN.
AGW	DEU	500	200	1000	400	
MAK	DEU	500	200	1000	400	

TLV	DNK	490	200			
VLA	ESP	500	200	1000	400	
TLV	EST	350	150	600	250	
VLEP	FRA			980	400	
WEL	GBR	999	400	1250	500	
TLV	GRC	980	400	1225	500	
GVI	HRV	999	400	1250	500	
AK	HUN	500		2000		
OEL	IRL		200		400	SKIN.
RD	LTU	350	150	600	250	
RV	LVA	350		600		
OEL	NLD	650				
TLV	NOR	245	100			
NDS	POL	900		1200		
NPHV	SVK	500	200	1000		
MV	SVN	500	200			
MAK	SWE	350	150	600	250	
TLV-ACGIH		492	200	983	400	

Predicted no-effect concentration - PNEC.		
Normal value in fresh water	140,9	mg/l
Normal value in marine water	140,9	mg/l
Normal value for fresh water sediment	552	mg/kg/d
Normal value for marine water sediment	552	mg/kg/d
Normal value for water, intermittent release	140,9	mg/l
Normal value of STP microorganisms	2251	mg/l
Normal value for the terrestrial compartment	28	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.			VND	26 mg/kg bw/d				
Inhalation.			VND	89 mg/m3			VND	500 mg/m3
Skin.			VND	319 mg/kg bw/d			VND	888 mg/kg bw/d

BUTYLGLYCOL ACETATE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	133	20	270	40	SKIN.
VLEP	BEL	133	20	333	50	SKIN.
TLV	BGR	133		333		SKIN.
VEL	CHE	66	10	132	20	SKIN.
MAK	CHE	66	10	132	20	SKIN.
TLV	CYP	133	20	333	50	SKIN.
TLV	CZE	130		300		SKIN.
AGW	DEU	130	20	520	80	SKIN.
MAK	DEU	66	10	132	20	SKIN.
TLV	DNK	130	20			SKIN.
VLA	ESP	133	20	333	50	SKIN.
HTP	FIN	130	20	330	50	SKIN.

VLEP	FRA	66,5	10	333	50	SKIN.
WEL	GBR	133	20	332	50	SKIN.
TLV	GRC	135	20	270	40	
GVI	HRV	133	20	333	50	SKIN.
AK	HUN	133		333		
OEL	IRL	133	20	333	50	SKIN.
TLV	ITA	133	20	333	50	SKIN.
RD	LTU	70	10	140	20	SKIN.
RV	LVA	133	20	333	50	SKIN.
OEL	NLD	135		333		SKIN.
TLV	NOR	65	10			SKIN.
NDS	POL	100		300		
NPHV	SVK	133	20	333		SKIN.
MV	SVN	133	20			SKIN.
MAK	SWE	70	10	140	20	SKIN.
ESD	TUR	133	20	333	50	SKIN.
OEL	EU	133	20	333	50	SKIN.
TLV-ACGIH		131	20			

Predicted no-effect concentration - PNEC.

Normal value in fresh water	0,304	mg/l
Normal value in marine water	0,0304	mg/l
Normal value for fresh water sediment	2,03	mg/kg/d
Normal value for marine water sediment	203	mg/kg/d
Normal value for water, intermittent release	0,56	mg/l
Normal value of STP microorganisms	90	mg/l
Normal value for the terrestrial compartment	0,415	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.	VND	36 mg/kg bw/d	NPI	8,6 mg/kg bw/d				
Inhalation.	200 mg/m3	NPI	NPI	80 mg/m3	333 mg/m3	NPI	NPI	133 mg/m3
Skin.	NPI	72 mg/kg bw/d	NPI	102 mg/kg bw/d	NPI	120 mg/kg bw/d	NPI	169 mg/kg bw/d

TOLUENE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	190	50	380	100	SKIN.
VLEP	BEL	77	20	384	100	SKIN.
TLV	BGR	150		300		
TLV	CZE	200		500		SKIN.
AGW	DEU	190	50	760	200	SKIN.
MAK	DEU	190	50	760	200	
TLV	DNK	94	25			SKIN.
VLA	ESP	192	50	384	100	SKIN.
TLV	EST	192	50	384	100	SKIN.
HTP	FIN	81	25	380	100	SKIN.
VLEP	FRA	76,8	20	384	100	SKIN.
WEL	GBR	191	50	384	100	SKIN.

TLV	GRC	192	50	384	100	
GVI	HRV	192	50	384	100	SKIN.
AK	HUN	190		760		
OEL	IRL	192	50	384	100	SKIN.
TLV	ITA	192	50			SKIN.
RD	LTU	192	50	384	100	SKIN.
RV	LVA	50	14	150	40	SKIN.
OEL	NLD	150		384		
TLV	NOR	94	25			SKIN.
NDS	POL	100		200		
NPHV	SVK	192	50	384		SKIN.
MAK	SWE	192	50	384	100	SKIN.
OEL	EU	192	50	384	100	SKIN.
TLV-ACGIH		75,4	20			

Predicted no-effect concentration - PNEC.

Normal value in fresh water	0,68	mg/l
Normal value in marine water	0,68	mg/l
Normal value for fresh water sediment	16,39	mg/kg/d
Normal value for marine water sediment	16,39	mg/kg/d
Normal value for water, intermittent release	0,68	mg/l
Normal value of STP microorganisms	13,61	mg/l
Normal value for the terrestrial compartment	2,89	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.	NPI	VND	VND	8,13 mg/kg bw/d				
Inhalation.	226 mg/m3	226 mg/m3	56,5 mg/m3	56,5 mg/m3	384 mg/m3	384 mg/m3	192 mg/m3	192 mg/m3
Skin.	NPI	NPI	NPI	226 mg/kg bw/d	NPI	NPI	NPI	384 mg/kg bw/d

2-BUTOXYETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	98	20	200	40	SKIN.
VLEP	BEL	98	20	246	50	SKIN.
TLV	BGR	98		246		SKIN.
VEL	CHE	49	10	98	20	SKIN.
MAK	CHE	49	10	98	20	SKIN.
TLV	CYP	98	20	246	50	SKIN.
TLV	CZE	100		200		SKIN.
AGW	DEU	49	10	196	40	SKIN.
MAK	DEU	49	10	98	20	SKIN.
TLV	DNK	98	20			SKIN.
VLA	ESP	98	20	245	50	SKIN.
TLV	EST	98	20	246	50	SKIN.
HTP	FIN	98	20	246	50	SKIN.
VLEP	FRA	49	10	246	50	SKIN.
WEL	GBR	123	25	246	50	SKIN.
TLV	GRC	120	25			

GVI	HRV	98	20	246	50	SKIN.
AK	HUN	98		246		
OEL	IRL	98	20	246	50	SKIN.
TLV	ITA	98	20	246	50	SKIN.
RD	LTU	50	10	100	20	SKIN.
RV	LVA	98	20	246	50	SKIN.
OEL	NLD	100		246		SKIN.
TLV	NOR	50	10			SKIN.
NDS	POL	98		200		
NPHV	SVK	98	20	246		SKIN.
MV	SVN	98	20			SKIN.
MAK	SWE	50	10	100	20	SKIN.
ESD	TUR	98	20	246	50	SKIN.
OEL	EU	98	20	246	50	SKIN.
TLV-ACGIH		97	20			

Predicted no-effect concentration - PNEC.

Normal value in fresh water	8,8	mg/l
Normal value in marine water	0,88	mg/l
Normal value for fresh water sediment	34,6	mg/kg/d
Normal value for marine water sediment	3,46	mg/kg/d
Normal value for water, intermittent release	9,1	mg/l
Normal value of STP microorganisms	463	mg/l
Normal value for the terrestrial compartment	2,33	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.	VND	26,7 mg/kg bw/d	VND	6,3 mg/kg bw/d				
Inhalation.	147 mg/m3	426 mg/m3	NPI	59 mg/m3	246 mg/m3	1091 mg/m3	NPI	98 mg/m3
Skin.	VND	89 mg/kg bw/d	NPI	75 mg/kg bw/d	NPI	89 mg/kg bw/d	NPI	125 mg/kg bw/d

METHYL ACETATE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	610	200	1220	400	
VLEP	BEL	615	200	768	250	
VEL	CHE	310	100	1240	400	
MAK	CHE	310	100	1240	400	
TLV	CZE	600		800		
AGW	DEU	610	200	2440	800	
MAK	DEU	310	100	1240	400	
TLV	DNK	455	150			
VLA	ESP	616	200	770	250	
TLV	EST	450	150	900	300	
HTP	FIN	610	200	770	250	
VLEP	FRA	610	200	760	250	SKIN.
WEL	GBR	616	200	770	250	
TLV	GRC	610	200	760	250	
GVI	HRV	616	200	770	250	

AK	HUN	610		2440		
RD	LTU	450	150	900	300	
RV	LVA	100				
OEL	NLD	100				
TLV	NOR	305	100			
NDS	POL	250		600		
NPHV	SVK	610	200	2440		
MAK	SWE	450	150	900	300	
TLV-ACGIH		606	200	757	250	

Predicted no-effect concentration - PNEC.

Normal value in fresh water	0,12	mg/l
Normal value in marine water	0,012	mg/l
Normal value for fresh water sediment	0,128	mg/kg/d
Normal value for marine water sediment	0,013	mg/kg/d
Normal value for water, intermittent release	1,2	mg/l
Normal value of STP microorganisms	600	mg/l
Normal value for the terrestrial compartment	0,042	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.	VND	NPI	VND	44 mg/kg bw/d				
Inhalation.	VND	VND	152 mg/m3	131 mg/m3	VND	VND	305 mg/m3	610 mg/m3
Skin.	VND	VND	NPI	44 mg/kg bw/d	NPI	VND	NPI	88 mg/kg bw/d

METHYL ETHYL KETONE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	295	100	590	200	SKIN.
VLEP	BEL	600	200	900	300	
TLV	BGR	590		885		
VEL	CHE	590	200	590	200	SKIN.
MAK	CHE	590	200	590	200	SKIN.
TLV	CYP	600	200	900	300	
TLV	CZE	600		900		
AGW	DEU	600	200	600	200	SKIN.
MAK	DEU	600	200	600	200	SKIN.
TLV	DNK	145	50			SKIN.
VLA	ESP	600	200	900	300	
TLV	EST	600	200	900	300	
HTP	FIN			300	100	SKIN.
VLEP	FRA	600	200	900	300	SKIN.
WEL	GBR	600	200	899	300	SKIN.
TLV	GRC	600	200	900	300	
GVI	HRV	600	200	900	300	SKIN.
AK	HUN	600		900		
OEL	IRL	600	200	900	300	SKIN.
TLV	ITA	600	200	900	300	
RD	LTU	600	200	900	300	

RV	LVA	200	67	900	300
TLV	NOR	220	75		
NDS	POL	450		900	
NPHV	SVK	600	200	900	
MAK	SWE	150	50	300	100
ESD	TUR	600	200	900	300
OEL	EU	600	200	900	300
TLV-ACGIH		590	200	885	300

Predicted no-effect concentration - PNEC.

Normal value in fresh water	55,8	mg/l
Normal value in marine water	55,8	mg/l
Normal value for fresh water sediment	284,74	mg/kg/d
Normal value for marine water sediment	284,74	mg/kg/d
Normal value for water, intermittent release	55,8	mg/l
Normal value of STP microorganisms	709	mg/l
Normal value for the food chain (secondary poisoning)	1000	mg/kg
Normal value for the terrestrial compartment	22,5	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.			VND	31 mg/kg bw/d				
Inhalation.			VND	106 mg/m3			VND	600 mg/m3
Skin.			VND	412 mg/kg bw/d			VND	1161 mg/kg bw/d

ISOBUTYL ACETATE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLEP	BEL	723	150		
VEL	CHE	480	100	960	200
MAK	CHE	480	100	960	200
TLV	CZE	950		1200	
MAK	DEU	480	100	960	200
VLA	ESP	724	150		
VLEP	FRA	710	150	940	200
WEL	GBR	724	150	903	187
TLV	GRC	950	200	950	200
GVI	HRV	724	150	903	187
OEL	IRL	700	150	875	187
OEL	NLD	480			
TLV	NOR		75		
NDS	POL	200		400	
NPHV	SVK	480	100		
MAK	SWE	500	100	700	150
TLV-ACGIH		713	150		

Predicted no-effect concentration - PNEC.

Normal value in fresh water	0,17	mg/l
Normal value in marine water	0,017	mg/l
Normal value for fresh water sediment	0,877	mg/kg/d
Normal value for marine water sediment	0,088	mg/kg/d
Normal value for water, intermittent release	0,34	mg/l
Normal value of STP microorganisms	200	mg/l

Normal value for the terrestrial compartment	0,075	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.	VND	5 mg/kg bw/d	VND	5 mg/kg bw/d				
Inhalation.	300 mg/m3	NPI	35,7 mg/m3	NPI	VND	600 mg/m3	300 mg/m3	NPI
Skin.	NPI	5 mg/kg bw/d	NPI	5 mg/kg bw/d	NPI	10 mg/kg bw/d	NPI	10 mg/kg bw/d

METHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	260	200	1040	800	SKIN.
VLEP	BEL	266	200	333	250	SKIN.
TLV	BGR	50				SKIN.
TLV	CYP	260	200			SKIN.
TLV	CZE	250		1000		SKIN.
AGW	DEU	270	200	1080	800	SKIN.
MAK	DEU	270	200	1080	800	SKIN.
TLV	DNK	260	200			
VLA	ESP	266	200			SKIN.
TLV	EST	260	200			SKIN.
HTP	FIN	270	200	330	250	SKIN.
VLEP	FRA	260	200	1300	1000	SKIN.
WEL	GBR	266	200	333	250	SKIN.
TLV	GRC	260	200	325	250	
GVI	HRV	260	200			SKIN.
AK	HUN	260		1040		
OEL	IRL	260	200			SKIN.
TLV	ITA	260	200			SKIN.
RD	LTU	260	200			SKIN.
RV	LVA	260	200			SKIN.
OEL	NLD	133	100			SKIN.
TLV	NOR	130	100			SKIN.
NDS	POL	100		300		
NPHV	SVK	260	200			SKIN.
MAK	SWE	250	200	350	250	SKIN.
OEL	EU	260	200			SKIN.
TLV-ACGIH		262	200	328	250	

Predicted no-effect concentration - PNEC.

Normal value in fresh water	20,8	mg/l
Normal value in marine water	20,8	mg/l
Normal value for fresh water sediment	77	mg/kg/d
Normal value for marine water sediment	7,7	mg/kg/d
Normal value for water, intermittent release	1540	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	100	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic

Oral.	VND	8 mg/kg bw/d	VND	8 mg/kg bw/d				
Inhalation.	50 mg/m3	50 mg/m3	50 mg/m3	50 mg/m3	260 mg/m3	260 mg/m3	260 mg/m3	260 mg/m3
Skin.	VND	8 mg/kg bw/d	VND	8 mg/kg bw/d	VND	40 mg/kg bw/d	VND	40 mg/kg bw/d

2-METHOXY-1-METHYLETHYL ACETATE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	275	50	550	100	SKIN.
VLEP	BEL	275	50	550	100	SKIN.
TLV	BGR	275		550		SKIN.
TLV	CYP	275	50	550	100	SKIN.
TLV	CZE	270		550		SKIN.
AGW	DEU	270	50	270	50	
MAK	DEU	270	50	270	50	
TLV	DNK	275	50			SKIN.
VLA	ESP	275	50	550	100	SKIN.
HTP	FIN	270	50	550	100	SKIN.
VLEP	FRA	275	50	550	100	SKIN.
WEL	GBR	274	50	548	100	
TLV	GRC	275	50	550	100	
AK	HUN	275		550		
OEL	IRL	275	50	550	100	SKIN.
TLV	ITA	275	50	550	100	SKIN.
RD	LTU	250	50	400	75	SKIN.
RV	LVA	275	50	550	100	SKIN.
OEL	NLD	550				
TLV	NOR	270	50			SKIN.
NDS	POL	260		520		
NPHV	SVK	275	50	550		SKIN.
MAK	SWE	250	50	400	75	SKIN.
ESD	TUR	275	50	550	100	SKIN.
OEL	EU	275	50	550	100	SKIN.

Predicted no-effect concentration - PNEC.

Normal value in fresh water	0,635	mg/l
Normal value in marine water	0,0635	mg/l
Normal value for fresh water sediment	3,29	mg/kg
Normal value for marine water sediment	0,329	mg/kg
Normal value for water, intermittent release	6,35	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,29	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.			VND	1,67 mg/kg bw/d				
Inhalation.			VND	33 mg/m3			VND	275 mg/m3
Skin.			VND	54,8 mg/kg bw/d			VND	153,5 mg/kg bw/d

1-METHOXY-2-PROPANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	187	50	187	50	SKIN.
VLEP	BEL	375	100	568	150	SKIN.
TLV	BGR	375		568		SKIN.
TLV	CYP	375	100	538	150	SKIN.
TLV	CZE	270		550		SKIN.
AGW	DEU	370	100	740	200	
MAK	DEU	370	100	740	200	
TLV	DNK	185	50			
VLA	ESP	375	100	568	150	SKIN.
HTP	FIN	370	100	560	150	SKIN.
VLEP	FRA	188	50	375	10	SKIN.
WEL	GBR	375	100	560	150	SKIN.
TLV	GRC	360	100	1080	300	
GVI	HRV	375	100	568	150	SKIN.
AK	HUN	375		568		
OEL	IRL	375	100	568	150	
TLV	ITA	375	100	568	150	SKIN.
OEL	NLD	375		563		SKIN.
TLV	NOR	180	50			SKIN.
NDS	POL	180		360		
NPHV	SVK	375	100	568		SKIN.
MAK	SWE	190	50	300	75	SKIN.
ESD	TUR	375	100	568	150	SKIN.
OEL	EU	375	100	568	150	SKIN.
TLV-ACGIH		184	50	368	100	

Predicted no-effect concentration - PNEC.		
Normal value in fresh water	10	mg/l
Normal value in marine water	1	mg/l
Normal value for fresh water sediment	52,3	mg/kg/d
Normal value for marine water sediment	5,2	mg/kg/d
Normal value for water, intermittent release	100	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	4,59	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.	VND	NPI	VND	33 mg/kg bw/d				
Inhalation.	NPI	NPI	NPI	43,9 mg/m3	553,5 mg/m3	553,5 mg/m3	NPI	369 mg/m3
Skin.	NPI	NPI	NPI	78 mg/kg bw/d	NPI	NPI	NPI	183 mg/kg bw/d

HYDROCARBONS, C7-C9, n-ALKANES, iso-ALKANES, CYCLICS

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV	ITA	1639	400	2049	500

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic	Effects on workers Acute local	Acute	Chronic local	Chronic

				systemic		systemic		systemic
Oral.	VND	VND	VND	699 mg/kg bw/d				
Inhalation.	VND	VND	VND	608 mg/m3	VND	VND	VND	2035 mg/m3
Skin.	VND	VND	VND	699 mg/kg bw/d	VND	VND	VND	773 mg/kg bw/d

TETRAHYDROFURAN

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	150	50	300	100	SKIN.
VLEP	BEL	150	50	300	100	SKIN.
TLV	BGR	150		300		SKIN.
TLV	CYP	150	50	300	100	SKIN.
TLV	CZE	150		300		SKIN.
AGW	DEU	150	50	300	100	SKIN.
MAK	DEU	150	50	300	100	SKIN.
TLV	DNK	148	50			
VLA	ESP	150	50	300	100	SKIN.
HTP	FIN	150	50	300	100	SKIN.
VLEP	FRA	150	50	300	100	SKIN.
WEL	GBR	150	50	300	100	SKIN.
TLV	GRC	590	200	735	250	
GVI	HRV	150	50	300	100	SKIN.
AK	HUN	150		300		
OEL	IRL	150	50	300	100	SKIN.
TLV	ITA	150	50	300	100	SKIN.
RD	LTU	150	50	300	100	SKIN.
RV	LVA	150	50	300	100	SKIN.
OEL	NLD	300		600		SKIN.
TLV	NOR	150	50			SKIN.
NDS	POL	150		300		
NPHV	SVK	150	50	300		SKIN.
MAK	SWE	150	50	250	80	
ESD	TUR	150	50	300	100	SKIN.
OEL	EU	150	50	300	100	SKIN.
TLV-ACGIH		147	50	295	100	

Predicted no-effect concentration - PNEC.

Normal value in fresh water	4,32	mg/l
Normal value in marine water	0,432	mg/l
Normal value for fresh water sediment	23,3	mg/kg/d
Normal value for marine water sediment	2,33	mg/kg/d
Normal value for water, intermittent release	21,6	mg/l
Normal value of STP microorganisms	4,6	mg/l
Normal value for the terrestrial compartment	2,13	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.			VND	15 mg/kg bw/d				
Inhalation.	150 mg/m3	150 mg/m3	75 mg/m3	62 mg/m3	300 mg/m3	300 mg/m3	150 mg/m3	150 mg/m3
Skin.	VND	VND	VND	15 mg/kg bw/d	VND	VND	VND	25 mg/kg bw/d

DICHLOROMETHANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	175	50	700	200	SKIN.
VLEP	BEL	177	50			
TLV	BGR	100		517		
VEL	CHE	180	50			
MAK	CHE	180	50			
TLV	CZE	200		500		SKIN.
AGW	DEU	260	75	1040	300	
TLV	DNK	122	35			
VLA	ESP	177	50			
TLV	EST	120	35	250	70	SKIN.
HTP	FIN	350	100	880	250	
VLEP	FRA	178	50	336	100	SKIN.
WEL	GBR	350	100	1060	300	SKIN.
TLV	GRC	350	100	1750	500	
GVI	HRV	350	100	1060	300	SKIN.
AK	HUN	10		10		
OEL	IRL	174	20	550	150	SKIN.
RD	LTU	120	35	250	70	SKIN.
RV	LVA	120		150		
OEL	NLD	350	100	1740	500	
TLV	NOR	50	15			SKIN.
NDS	POL	88				
NPHV	SVK	350	100			
MV	SVN	350	100			
MAK	SWE	120	35	250	70	SKIN.
TLV-ACGIH		174	50			

Predicted no-effect concentration - PNEC.

Normal value in fresh water	0,31	mg/l
Normal value in marine water	0,031	mg/l
Normal value for fresh water sediment	2,57	mg/kg/d
Normal value for marine water sediment	0,26	mg/kg/d
Normal value for water, intermittent release	0,27	mg/l
Normal value of STP microorganisms	26	mg/l
Normal value for the terrestrial compartment	0,33	mg/kg/d

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers. Acute local	Acute systemic	Chronic local	Chronic systemic	Effects on workers Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.			VND	0,06 mg/kg bw/d				
Inhalation.	NPI	VND	NPI	88,3 mg/m3	NPI	706 mg/m3	NPI	353 mg/m3
Skin.	VND	VND	VND	5,82 mg/kg bw/d	VND	VND	VND	12 mg/kg bw/d

CYCLOHEXANE

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm

MAK	AUS	700	200	2800	800
VLEP	BEL	350	100		
TLV	BGR	500			
VEL	CHE	700	200	2800	800
MAK	CHE	700	200	2800	800
TLV	CZE	700		2000	
AGW	DEU	700	200	2800	800
MAK	DEU	700	200	2800	800
TLV	DNK	172	50		
VLA	ESP	700	200		
HTP	FIN	350	100	875	250
VLEP	FRA	700	200	1300	375
WEL	GBR	350	100	1050	300
TLV	GRC	700	200		
GVI	HRV	700	200		
AK	HUN	700		2800	
OEL	IRL	700	200		
TLV	ITA	350	100		
RD	LTU	700	200		
RV	LVA	80	23		
OEL	NLD	700		1400	
TLV	NOR	525	150		
NDS	POL	300		1000	
NPHV	SVK	700	200		
MV	SVN	700	200		
MAK	SWE	1000	300	1300	370
OEL	EU	700	200		
TLV-ACGIH		344	100		

Predicted no-effect concentration - PNEC.

Normal value in fresh water	0,207	mg/l
Normal value in marine water	0,207	mg/l
Normal value for fresh water sediment	3,627	mg/kg/d
Normal value for marine water sediment	3,627	mg/kg/d
Normal value for water, intermittent release	0,207	mg/l
Normal value of STP microorganisms	3,24	mg/l
Normal value for the terrestrial compartment	2,99	mg/kg/d

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	59,4 mg/kg bw/d				
Inhalation.	412 mg/m3	412 mg/m3	206 mg/m3	206 mg/m3	700 mg/m3	700 mg/m3	700 mg/m3	700 mg/m3
Skin.	VND	VND	VND	1186 mg/kg bw/d	VND	VND	VND	2016 mg/kg bw/d

Legend:

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

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

XYLENI: Biological Exposure Indices (IBE): Hippuric Acid in urine: 1.5 g/g creatinina. Sampling time: End of shift. (ACGIH 2014).

METHYL ETHYL KETONE: Biological Exposure Indices (IBE): methyl ethyl ketone in urine: 2 mg/l. Sampling time: End of shift (ACGIH 2014).

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

Provide an emergency shower with face and eye wash station.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

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 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 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 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.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	liquid
Colour	white
Odour	aromatic
Odour threshold.	0,7 ppm (N-BUTYL ACETATE)
pH.	Not applicable.
Melting point / freezing point.	<-90°C (N-BUTYL ACETATE)
Initial boiling point.	> 35 °C.
Boiling range.	56°C (ICSC 0087) (ACETONE)

	126°C (ICSC 0399) (N-BUTYL ACETATE)
Flash point.	< 23 °C.
Evaporation rate	1 (butyl acetate=1) (N-BUTYL ACETATE)
Flammability (solid, gas)	not applicable
Lower inflammability limit.	1,7 (in air Vol%) (N-BUTYL ACETATE)
Upper inflammability limit.	7,6 (in air Vol%) (N-BUTYL ACETATE)
Lower explosive limit.	1,2 (in air Vol%) (ICSC 0399) (N-BUTYL ACETATE)
Upper explosive limit.	7,6 (in air Vol%) (ICSC 0399) (N-BUTYL ACETATE)
Vapour pressure.	11,2 hPa (T=20°C) (N-BUTYL ACETATE)
Vapour density	4 (air=1) (ICSC 0399) (N-BUTYL ACETATE)
Relative density.	1,000 Kg/l
Solubility	insoluble in water
Partition coefficient: n-octanol/water	2,3 Log Pow (T=25°C) (N-BUTYL ACETATE)
Auto-ignition temperature.	415 °C(1010 hPa) (N-BUTYL ACETATE)
Decomposition temperature.	Not available.
Viscosity	320 ± 50 cPs (T = 25 °C)
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.

VOC (Directive 2004/42/EC) :	40,38 %	-	525,00	g/litre.
VOC (volatile carbon) :	47,57 %	-	475,67	g/litre.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

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

1-METHOXY-2-PROPANOL ACETATE: stable but with the air it may slowly develop peroxides that explode with an increase in temperature.
TOLUENE: breaks down in sunlight.
DICHLOROMETHANE: deomposes > 120°C/248°F. With water and alkalis it may form hydrochloric acid and attack aluminium, copper and alloys.
2-BUTOXYETHANOL: decomposes in the presence of heat.
TETRAHYDROFURAN: can form peroxides on contact with the air. For this reason the commercial product is stabilised with a reducing agent, for example ferrous sulphate or hydroquinone.
NITROCELLULOSE: high risk of fire in dry state, if exposed to heat, flames or strong oxidising agents. Decomposes under the effect of heat.
1-METHOXY-2-PROPANOL: absorbs and disolves in water and in organic solvents, dissolves various plastic materials; it is stable but with air it may slowly form explosive peroxides.
ACETONE: decomposes under the effect of heat.
BUTANONE: reacts with light metals like aluminium, and with strong oxidising agents; attacks various types of plastic. Decomposes under the effect of heat.
ETHYL ACETATE: decomposes slowly into acetic acid and ethanol under the effect of light, air and water.
N-BUTYL ACETATE: decomposes readily with water, especially when warm.

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.

XYLENE (MIXTURE OF ISOMERS): stable, but may develop violent reactions in the presence of strong oxidising agents such as sulphuric and nitric acids and perchlorates. May form explosive mixtures with the air.
1-METHOXY-2-PROPANOL ACETATE: may react violently with oxidising agents and strong acids and alkaline metals.

CYCLOHEXANE: can react violently with strong oxidising agents and liquid nitric oxide. Forms explosive mixtures with the air.
TOLUENE: risk of explosion on contact with fuming sulphuric acid, nitric acid, silver perchlorates, nitrogen dioxide, non-metal halogenides, acetic acid, organic nitrocompounds. Can form explosive mixtures with the air. May react dangerously with: strong oxidising agents, strong acids, sulphur (in the presence of heat).
DICHLOROMETHANE: risk of explosion on contact with alkaline metals, nitric acid, aluminium (powder), ethanediamine, aluminium chloride, perchloric acid, dinitrogen pentoxide, sodium nitride, n-nitroso n-methylurea, potassiun hydroxide. Can react dangerously with: alkaline earth metals, metal powders, sodium amides, potassium tert-butylate. Can form explosive mixtures with the air.
2-BUTOXYETHANOL: can react dangerously with: aluminium, oxidising agents. Forms peroxide with air.
TETRAHYDROFURAN: reacts violently developing heat with: metal halogenates, thionile chloride, bromine. Produces heat and develops flammable gases with oxidising agents. Releases hydrogen with sodium aluminium hydride, calcium hydride and lithium aluminium hydride. Risk of explosion with: 2-aminophenol and potassium peroxide, alkaline hydroxides. Forms explosive mixtures with the air.
NITROCELLULOSE: risk of explosion under the effect of heat, blows and rubbing.
1-METHOXY-2-PROPANOL: can react dangerously with strong oxidising agents and strong acids.
ACETONE: risk of explosion on contact with: bromine trifluoride, difluoro dioxide, hydrogen peroxide, nitrosyl chloride, 2-methyl-1,3 butadiene, nitromethane, nitrosyl perchlorate. Can react dangerously with: potassium tert-butoxide, alkaline hydroxides, bromine, bromoform, isoprene, sodium, sulphur dioxide, chromium trioxide, chromyl chloride, nitric acid, chloroform, peroxymonosulphuric acid, phosphoryl chloride, chromosulphuric acid, fluorine, strong oxidising agents. Develops flammable gases with nitrosyl perchlorate.
BUTANONE: may generate peroxides on contact with air, light or oxidising agents. Risk of explosion on contact with: hydrogen peroxide and sulphuric acid. It may react dangerously with: oxidising agents, trichloromethane, alkalis. 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.
N-BUTYL ACETATE: risk of explosion on contact with: strong oxidising agents. Can react dangerously with alkaline hydroxides, 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.

1-METHOXY-2-PROPANOL ACETATE: store in an inert atmosphere, sheletered from moisture because it hydrolises easily.
DICHLOROMETHANE: avoid exposure to naked flames and hot surfaces.
2-BUTOXYETHANOL: avoid exposure to sources of heat and naked flames.
TETRAHYDROFURAN: avoid exposure to sources of heat and naked flames.
1-METHOXY-2-PROPANOL: avoid exposure to the air.
ACETONE: avoid exposure to sources of heat and naked flames.
BUTANONE: avoid exposure to sources of heat.
ETHYL ACETATE: avoid exposure to light, sources of heat and naked flames.
N-BUTYL ACETATE: avoid exposure to moisture, sources of heat and naked flames.

10.5. Incompatible materials.

1-METHOXY-2-PROPANOL ACETATE: oxidising agents, strong acids and alkaline metals.
CYCLOHEXANE: butyl and natural rubber, neoprene, PVC, polyethylene.
DICHLOROMETHANE: aluminium, magnesium powder, sodium, potassium, concentrated nitric acid, caustic agents and strong oxidising agents.
NITROCELLULOSA: evitare il contatto con acidi, ammine, basi, sali metallici, sostanze riducenti e ossidanti.
1-METHOXY-2-PROPANOL: oxidising agents, strong acids and alkaline metals.
ACETONE: acid and oxidising substances.
BUTANONE: strong oxidising agents, inorganic acids, ammonia, copper and chloroform.
ETHYL ACETATE: acids and bases, strong oxidising agents; aluminium and some plastics, nitrates and chlorosulphuric acid.
N-BUTYL ACETATE: water, nitrates, strong oxidising agents, acids and alkalis and potassium tert-butoxide.

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.

DICHLOROMETHANE: dioxins, phosgenes and hydrochloric acid.
2-BUTOXYETHANOL: hydrogen.
NITROCELLULOSE: nitric oxides.
ACETONE: ketenes and other irritating compounds.

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.
This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.
Acute effects: contact with skin may cause: irritation, erythema, edema, dryness and chapped skin. Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
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.

11.1. Information on toxicological effects.

Data refers to the mix:

ACUTE TOXICITY: No data available
SKIN CORROSION/IRRITATION: Causes skin irritation (section 3.2 of the safety data sheet)
SERIOUS EYE DAMAGE/IRRITATION: Causes serious eye irritation (section 3.2 of the safety data sheet)
RESPIRATORY OR SKIN SENSITISATION: No data available
GERM CELL MUTAGENICITY: No data available
CARCINOGENICITY: No data available
REPRODUCTIVE TOXICITY: No data available
STOT-SINGLE EXPOSURE: May cause drowsiness or dizziness. (section 3.2 of the safety data sheet)
STOT-REPEATED EXPOSURE: May cause damage to organs through prolonged or repeated exposure (section 3.2 of the safety data sheet)
ASPIRATION HAZARD: not relevant to viscosity values (section 9 of the safety data sheet)

Data relating to substances hazardous mixture:

XYLENE (MIXTURE OF ISOMERS): has a toxic effect on the CNS (encephalopathies). Irritating to the skin, conjunctivae, cornea and respiratory apparatus.
ACUTE TOXICITY:
LD50 (Oral).3523 mg/kg Rat (equivalent or similar to EU Method B.1)
LD50 (Dermal).4200 mg/kg Rabbit (Industrial Medicine 39, 215-200, 1970)
LC50 (Inhalation).26 mg/l/4h Rat(equivalent or similar to EU Method B.2)
SKIN CORROSION/IRRITATION: Causes skin irritation. (test in vivo, Rabbit, Industrial Medicine 39, 215-200.)
SERIOUS EYE DAMAGE/IRRITATION: Causes eyes irritation (Draize Test, Rabbit, exposure time 24h)
RESPIRATORY OR SKIN SENSITISATION: not sensitizing. (mouse, OECD Guideline 429)
GERM CELL MUTAGENICITY: negative, (Mouse, test in vivo, Equivalent or similar to OECD Guideline 478)
CARCINOGENICITY: negative, (mouse, Equivalent or similar to EU Method B.32)
REPRODUCTIVE TOXICITY: NOEC = 100 ppm (parental systemic toxicity), NOAEC >500 ppm (reproductive and developmental toxicity) (Rat, Equivalent or similar to EPA OPPTS 870.3800)
STOT-SINGLE EXPOSURE: May cause respiratory irritation. (Environmental Toxicology and Pharmacology, Vol 14, pp 129-137)
STOT-REPEATED EXPOSURE: Causes damage to organs: central nervous system, liver and kidneys, through prolonged or repeated exposure, (Rat, Metodo OECD Guideline 408).
ASPIRATION HAZARD: May be fatal if swallowed and enters airways. (Annex VI, REGULATION (EC) No 1272/2008).

1-METHOXY-2-PROPANOL ACETATE: the main way of entry is the skin, whereas the respiratory way is less important owing to the low vapour tension of the product. Concentrations above 100 ppm cause eye irritation, nose and oropharynx. At 1000 ppm disturbance in the equilibrium and severe eye irritation is observed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and ocular irritation on direct contact. No chronic effects have been reported in man.
ACUTE TOXICITY:
LD50 (Oral).8530 mg/kg Rat
LD50 (Dermal).> 5000 mg/kg Rat

CYCLOHEXANE: irritant to the skin and mucous membranes; may be absorbed by the skin; neurolesive actions may occur at high doses and to a great extent is due to its metabolite, cyclohexanone.
ACUTE TOXICITY:
LD50 (Oral).> 5000 mg/kg Rat, EQUIVALENT OR SIMILAR TO (OECD Guideline 401)
LD50 (Dermal).> 2000 mg/kg Rabbit, EQUIVALENT OR SIMILAR TO (OECD Guideline 402)
LC50 (Inhalation).19 mg/l/4h Rat, EQUIVALENT OR SIMILAR TO (OECD Guideline 403)

TOLUENE: it has a toxic effect on the central and peripheral nervous system (with encephalopathies and polyneuritis). Irritating to the skin, conjunctivae, cornea and respiratory apparatus.
ACUTE TOXICITY:
LD50 (Oral).5580 mg/kg Rat, equivalent or similar to (EU Method B.1 (Acute Toxicity (Oral)))
LD50 (Dermal).> 5000 mg/kg Rabbit
LC50 (Inhalation).28,1 mg/l/4h Rat, equivalent or similar to (OECD Guideline 403)
SKIN CORROSION/IRRITATION: Causes skin irritation. Toluene is moderately skin irritating. The skin irritation potential of toluene was assessed in 7 rabbits according to EU method B4. (Annex VI, REGULATION (EC) No 1272/2008)
SERIOUS EYE DAMAGE/IRRITATION: Toluene is not irritating to the rabbit eye, ACCORDING TO (OECD Guideline 405)
RESPIRATORY OR SKIN SENSITISATION: Toluene was not a skin sensitizer ACCORDING TO (EU Method B.6 (Skin Sensitisation))
GERM CELL MUTAGENICITY: TEST IN VIVO: No evidence of genotoxicity. The study was negative, as all chromosomal aberrations observed were in the range of the spontaneous background. TEST IN VITRO: Negative with and without metabolic activation, test equivalent or similar to (EU Method B.13/14) (Mutagenicity - Reverse Mutation Test Using Bacteria)
CARCINOGENICITY: Not carcinogenic. Survival and tumour incidence were unaltered in male and female rats exposed to toluene vapour for up to two years. Non-neoplastic changes were found in the nasal cavity, forestomach and kidney. According with (OECD Guideline 453)
REPRODUCTIVE TOXICITY: Suspected of damaging fertility or the unborn child. Suspected of damaging the unborn child via inhalation. Male and female rats were exposed to toluene vapour. Toluene showed no effects on fertility in rats, however, decreased sperm count was reported at 2000 ppm (90 days, 6 h/day). The NOAEC for this effect was 600 ppm (2261 mg/m3). Toluene exposures up to 1200 ppm do not induce adverse effects on the behaviour of rat offspring exposed during late embryonic and foetal development. (Annex VI, REGULATION (EC) No 1272/2008)
STOT-SINGLE EXPOSURE: May cause drowsiness or dizziness. (Annex VI, REGULATION (EC) No 1272/2008)
STOT-REPEATED EXPOSURE: May cause damage to organs through prolonged or repeated exposure. May cause damage to central nervous system via inhalation. inhalation: Toluene does not cause adverse effects in the rat following inhalation exposure to 300 ppm for up to 24 months. The NOAEC for chronic systemic or local toxicity in this study was 300 ppm (1131 mg/m3). (Annex VI, REGULATION (EC) No 1272/2008)
ASPIRATION HAZARD: May be fatal if swallowed and enters airways. (Annex VI, REGULATION (EC) No 1272/2008).

DICHLOROMETHANE: Acute toxicity in man: cognitive disorders only if inhaled at very high doses; at 200-500 ppm, nausea, vomiting, dizziness, paresthesia, asthenia and headache have been observed. Skin contact causes pain which soon disappears without any burns. Superficial lesions of the cornea occur on contact with the eyes.
ACUTE TOXICITY:
LD50 (Oral).> 2000 mg/kg Rat, accroding to (OECD Guideline 401)
LD50 (Dermal).> 2000 mg/kg Rat, according to (OECD Guideline 402)
LC50 (Inhalation).86 mg/l/4h mouse, according to (OECD GHS)

METHANOL: The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).

1-METHOXY-2-PROPANOL: the main way of entry is the skin, whereas the respiratory way is less important owing to the low vapour tension of the product. Concentrations above 100 ppm cause eye irritation, nose and oropharynx. At 1000 ppm disturbance in the equilibrium and severe eye irritation is observed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and ocular irritation on direct contact. No chronic effects have been reported in man.
ACUTE TOXICITY:
1-METHOXY-2-PROPANOL
LD50 (Oral).4016 mg/kg Rat, equivalent or similar to (EU Method B.1)
LD50 (Dermal).> 2000 mg/kg Rat, equivalent or similar to (EU Method B.3)
LC50 (Inhalation).54,6 mg/l/4h Rat

METHYL ETHYL KETONE
ACUTE TOXICITY:
METHYL ETHYL KETONE
LD50 (Oral).2193 mg/kg Rat (read-across from supporting substance, Equivalent or similar to OECD Guideline 423)
LD50 (Dermal).6480 mg/kg Rabbit (Shell Chemical Company. Vol. MSDS-5390-4)
LC50 (Inhalation).5000 ppm Rat (Rif. SDS Brenntag)
SKIN CORROSION/IRRITATION: negative (Rabbit, Read-across from supporting substance, OECD Guideline 404, GLP)
SERIOUS EYE DAMAGE/IRRITATION: Causes eyes irritation (Rabbit, Equivalent or similar to OECD Guideline 405)
RESPIRATORY OR SKIN SENSITISATION: negative (Guinea pig, OECD Guideline 406, GLP)
GERM CELL MUTAGENICITY: negative (Mouse, Equivalent or similar to OECD Guideline 474)
CARCINOGENICITY: No data available
REPRODUCTIVE TOXICITY: NOAEL = 1644 mg/kg/day (Rat, Read-across from supporting substance, Equivalent or similar to OECD Guideline 416)
STOT-SINGLE EXPOSURE: May cause drowsiness or dizziness. (Annex VI, REGULATION (EC) No 1272/2008)
STOT-REPEATED EXPOSURE: NOAEC (inalation) = 5041 ppm (Rat, Equivalente o similare to OECD Guideline 413, GLP)
ASPIRATION HAZARD: No data available.

ETHYL ACETATE
ACUTE TOXICITY:
LD50 (Oral).4934 mg/kg Rabbit (Equivalent to OECD 401)
LD50 (Dermal).20000 mg/kg Rabbit (Publication Am Ind Hyg Ass J, 23, 95)
LC50 (Inhalation).22,5 mg/l/6h Rat (40 CFR Part 799 (58 FR 40262))
SKIN CORROSION/IRRITATION: Skin slightly irritating (Rabbit, OECD 404)

SERIOUS EYE DAMAGE/IRRITATION: irritating to eyes (Annex VI, REGULATION (EC) No 1272/2008).
RESPIRATORY OR SKIN SENSITISATION: not sensitizing (Guinea pig, OECD Guideline 406)
GERM CELL MUTAGENICITY: negative, (Hamster, Equivalent or similar to OECD Guideline 474)
CARCINOGENICITY: No data available.
REPRODUCTIVE TOXICITY: NOAEL = 26400 mg/kg (Mouse, Read-across from supporting substance, equivalent or similar to OECD Guideline 416)
STOT-SINGLE EXPOSURE: It can cause respiratory irritation (Annex VI, REGULATION (EC) No 1272/2008).
STOT-REPEATED EXPOSURE:
Orale: NOAEL = 900 mg/kg bw/day (Rat, Equivalent or similar to EPA OTS 795.2600, GLP)
Inalation: NOAEL = 350 ppm (Rat, EPA OTS 798.2450, GLP)
ASPIRATION HAZARD: May be fatal if swallowed and enters airways. (Annex VI, REGULATION (EC) No 1272/2008).

N-BUTYL ACETATE:in humans the substance's vapours cause irritation to the eues and nose. In the event of repeated exposure, there is skin irritation, dermatosis (with driness and flaking of the skin) and keratitis.
ACUTE TOXICITY:
LD50 (Oral).10760 mg/kg Rat (Equivalent or similar to OECD Guideline 423)
LD50 (Dermal).14112 mg/kg Rabbit (Equivalent or similar to OECD Guideline 402)
LC50 (Inhalation).5,3 mg/l/4h Rat (Equivalent or similar to OECD Guideline 423)
SKIN CORROSION/IRRITATION: non-irritating (Rabbit, Equivalent or similar to OECD Guideline 404)
SERIOUS EYE DAMAGE/IRRITATION: non-irritating (Rabbit, OECD Guideline 405)
RESPIRATORY OR SKIN SENSITISATION: No data available
GERM CELL MUTAGENICITY: negative, test in vivo (Read-across from supporting substance, OECD Guideline 474, GLP)
CARCINOGENICITY: No data available
REPRODUCTIVE TOXICITY: no teratogenic effect. NOEC (fertilità) = 2000 ppm, NOAEC (developmental toxicity) = 750 ppm, NOAEC (systemic toxicity) = 750 ppm. (Rat, OECD Guideline 416, GLP)
STOT-SINGLE EXPOSURE: May cause drowsiness or dizziness. (Annex VI, REGULATION (EC) No 1272/2008)
STOT-REPEATED EXPOSURE: NOAEC = 500 ppm (Rat, EPA OTS 798.2450)
ASPIRATION HAZARD: No data available.

2-BUTOXYETHANOL
ACUTE TOXICITY:
LD50 (Oral).615 mg/kg Rat
LD50 (Dermal).405 mg/kg Rabbit
LC50 (Inhalation).2,2 mg/l/4h Rat

TETRAHYDROFURAN
ACUTE TOXICITY:
LD50 (Oral).1,65 mg/kg rat, standard acute method
LD50 (Dermal).> 2000 mg/kg rat, according to (OECD Guideline 402)

PROPAN-2-OL
ACUTE TOXICITY:
LD50 (Oral).4710 mg/kg Rat
LD50 (Dermal).12800 mg/kg Rat
LC50 (Inhalation).72,6 mg/l/4h Rat

ACETONE
ACUTE TOXICITY:
LD50 (Oral).5800 mg/kg rat, (standard acute method)

METHYL ACETATE
ACUTE TOXICITY:
LD50 (Oral).6482 mg/kg rat, equivalent or similar to (OECD Guideline 401)
LD50 (Dermal).> 2000 mg/kg rat, according to (OECD Guideline 402)
LC50 (Inhalation).> 49,2 mg/l/4h rabbit, standard acute method

BUTYLGLYCOL ACETATE
ACUTE TOXICITY:
LD50 (Oral).1880 mg/kg rat, equivalent or similar to (OECD Guideline 401)
LD50 (Dermal).1500 mg/kg rabbit, Bibliographic source (Toxicol Appl Pharmac 51, 117-27)

SECTION 12. Ecological information.

12.1. Toxicity.

XYLENE (MIXTURE OF ISOMERS)

LC50 - for Fish.	2,6 mg/l/96h Oncorhynchus mykiss (OECD TG 203)
Chronic NOEC for Fish.	1,3 mg/l 56d Oncorhynchus mykiss (Appl. Sci. Branch, Eng. Res. Cent. Denver, CO: 15p.)
Chronic NOEC for Crustacea.	1,17 mg/l 7d Ceriodaphnia dubia (Ecotoxicology and Environmental Safety 39, 136-146)

2-METHOXY-1-METHYLETHYL ACETATE

LC50 - for Fish.	134 mg/l/96h Oncorhynchus mykiss (OECD Guideline 203)
EC50 - for Crustacea.	500 mg/l/48h Daphnia magna (EU Method C.2)

CYCLOHEXANE

LC50 - for Fish.	4,53 mg/l/96h Pimephales promelas, EQUIVALENT OR SIMILAR TO (OECD Guideline 203)
EC50 - for Crustacea.	0,9 mg/l/48h Daphnia magna, EQUIVALENT OR SIMILAR TO (OECD Guideline 202)
EC50 - for Algae / Aquatic Plants.	3,428 mg/l/72h Pseudokirchnerella subcapitata, EQUIVALENT OR SIMILAR TO (OECD Guideline 201)

TOLUENE

LC50 - for Fish.	5,5 mg/l/96h Oncorhynchus kisutch,
EC50 - for Crustacea.	3,78 mg/l/48h Ceriodaphnia dubia, according to (US EPA 600/4-91-003)
Chronic NOEC for Fish.	1,4 mg/l Oncorhynchus kisutch
Chronic NOEC for Crustacea.	0,74 mg/l Ceriodaphnia dubia, according to (US EPA 600/4-91-003)

DICHLOROMETHANE

LC50 - for Fish.	193 mg/l/96h Pimephales promelas, according to "Commitee on mtd for toxicity tests with aquatic organisms" (1975
EC50 - for Crustacea.	27 mg/l/48h Daphnia magna, according EPA publication (660/3-75-009)
Chronic NOEC for Fish.	83 mg/l Pimephales promelas, 28d according to (ASTM E729-80)

METHANOL

LC50 - for Fish.	12700 mg/l/96h Lepomis macrochirus, according to (EPA-660/3-75-009, 1975)

2-BUTOXYETHANOL

LC50 - for Fish.	1474 mg/l/96h Oncorhynchus mykiss, according to (OECD Guideline 203)
EC50 - for Crustacea.	1550 mg/l/48h Daphnia magna, according to (OECD Guideline 202)
EC50 - for Algae / Aquatic Plants.	911 mg/l/72h Pseudokirchnerella subcapitata, according to (OECD Guideline 201)

TETRAHYDROFURAN

LC50 - for Fish.	2160 mg/l/96h Pimephales promelas, equivalent or similasr to (OECD Guideline 203)
EC50 - for Crustacea.	3485 mg/l/48h Daphnia magna, equivalent or similar to (OECD Guideline 202)
Chronic NOEC for Fish.	216 mg/l Pimephales promelas,

1-METHOXY-2-PROPANOL

LC50 - for Fish.	> 1000 mg/l/96h Oncorhynchus mykiss, equivalent or similar to (OECD Guideline 203)
EC50 - for Crustacea.	> 21100 mg/l/48h Daphnia magna, according to (Test Method No. ESR-ES-15)
EC50 - for Algae / Aquatic Plants.	> 1000 mg/l/72h Pseudokirchnerella subcapitata, according to (Test method ET-11-1987-1)

PROPAN-2-OL

LC50 - for Fish.	9640 mg/l/96h Pimephales promelas, according to (Toxicity Tests with Aquatic Organisms (1975))

ACETONE

LC50 - for Fish.	5540 mg/l/96h Oncorhynchus mykiss, according to (Aquatic Organisms (US EPA) 1975)
EC50 - for Crustacea.	8800 mg/l/48h Daphnia pulex, (Adema, D.M.M. (1978) Hydrobiologia 59, 125-134)
Chronic NOEC for Crustacea.	2212 mg/l Daphnia magna, 28d accordint to OECD 211 with deviations

METHYL ETHYL KETONE

LC50 - for Fish.	2993 mg/l/96h Pimephales promelas (OECD Guideline 203, GLP)
EC50 - for Crustacea.	308 mg/l/48h Daphnia magna (OECD Guideline 202, GLP)
EC50 - for Algae / Aquatic Plants.	1972 mg/l/72h Selenastrum capricornutum (OECD Guideline 201, GLP)

METHYL ACETATE

LC50 - for Fish.	250 mg/l/96h Danio rerio, according to (OECD Guideline 203)
EC50 - for Crustacea.	1026,7 mg/l/48h Daphnia magna, according to (EU Method C.2)
EC50 - for Algae / Aquatic Plants.	> 120 mg/l/72h Desmodesmus subspicatus, according to (OECD Guideline 201)

ETHYL ACETATE

LC50 - for Fish.	230 mg/l/96h Pimephales promelas (US EPA method E03-05)
EC50 - for Crustacea.	165 mg/l/48h Dapnia (Rif. SDS fornitore)
Chronic NOEC for Crustacea.	100 mg/l Scenedesmus subspicatus (OECD Guideline 201, GLP)

N-BUTYL ACETATE

LC50 - for Fish.	18 mg/l/96h Pimephales promelas (Equivalent or similar to OECD Guideline 203)
EC50 - for Crustacea.	44 mg/l/48h Daphnia sp. (Publication, 1959, no guideline followed)
EC50 - for Algae / Aquatic Plants.	648 mg/l/72h Desmodesmus subspicatus (Umweltbundesamt - German Federal Environment Agency)
Chronic NOEC for Crustacea.	23 mg/l Daphnia magna, 21 d (Read-across from supporting substance, OECD Guideline 211)

BUTYLGLYCOL ACETATE

LC50 - for Fish.	< 40 mg/l/96h Oncorhynchus mykiss, LC50 > 20 < 40 mg/L according to (OECD Guideline 203)
EC50 - for Crustacea.	145 mg/l/48h Daphnia magna, according to (German national standard DIN 38 412 part 11)
EC50 - for Algae / Aquatic Plants.	520 mg/l/72h Pseudokirchnerella subcapitata, according to (ISO 8692)

12.2. Persistence and degradability.

N-BUTYL ACETATE
Readily biodegradable: 83% in 28 days (Metod OECD TG 301 D).

XYLENE (MIXTURE OF ISOMERS)

Solubility in water.	mg/l 100 - 1000 Handbook of aqueous solubility data.

Rapidly biodegradable.

OECD Guideline 301 F, GLP

2-METHOXY-1-METHYLETHYL ACETATE

Solubility in water. > 10000 mg/l
Rapidly biodegradable.

(OECD Guideline 301 F, GLP)

CYCLOHEXANE
Solubility in water. mg/l 0,1 - 100
Rapidly biodegradable.

TOLUENE
Solubility in water. mg/l 100 - 1000
Rapidly biodegradable.

DICHLOROMETHANE
Solubility in water. 13200 mg/l
Rapidly biodegradable.

METHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

2-BUTOXYETHANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

TETRAHYDROFURAN
Solubility in water. mg/l 1000 - 10000
NOT rapidly biodegradable.

1-METHOXY-2-PROPANOL
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

PROPAN-2-OL
Rapidly biodegradable.

EU Method C.5

ACETONE
Rapidly biodegradable.

METHYL ETHYL KETONE
Solubility in water. > 10000 mg/l
Rapidly biodegradable.

(OECD Guideline 301 D, GLP)

METHYL ACETATE
Solubility in water. 243500 mg/l
Rapidly biodegradable.

ETHYL ACETATE
Solubility in water. > 10000 mg/l
Rapidly biodegradable.

(Publication JWPCF 46(1), p63-77)

N-BUTYL ACETATE
Solubility in water. mg/l 1000 - 10000
Rapidly biodegradable.

OECD Guideline 301 D

BUTYLGLYCOL ACETATE
Rapidly biodegradable.

12.3. Bioaccumulative potential.

XYLENE (MIXTURE OF ISOMERS)
Partition coefficient: n-octanol/water. 3,12 American Chemical Society, Washington DC
BCF. 25,9 Appl. Sci. Branch, Eng. Res. Cent. Denver, CO: 15p.

2-METHOXY-1-METHYLETHYL ACETATE
Partition coefficient: n-octanol/water. 1,2

CYCLOHEXANE
Partition coefficient: n-octanol/water. 3,44
BCF. 167 Pimephales promelas, According to Veith (1979)

TOLUENE
Partition coefficient: n-octanol/water. 2,73
BCF. 90

DICHLOROMETHANE
Partition coefficient: n-octanol/water. 1,25
BCF. 2 Cyprinus carpio, according to (OECD Guideline 305)

METHANOL
Partition coefficient: n-octanol/water. -0,77
BCF. 0,2

2-BUTOXYETHANOL
Partition coefficient: n-octanol/water. 0,81

TETRAHYDROFURAN
Partition coefficient: n-octanol/water. 0,45

1-METHOXY-2-PROPANOL
Partition coefficient: n-octanol/water. < 1

PROPAN-2-OL
Partition coefficient: n-octanol/water. 0,05

ACETONE
Partition coefficient: n-octanol/water. -0,23
BCF. 3

METHYL ETHYL KETONE
Partition coefficient: n-octanol/water. 0,3

METHYL ACETATE
Partition coefficient: n-octanol/water. 0,18

ETHYL ACETATE
Partition coefficient: n-octanol/water. 0,68
BCF. 30

N-BUTYL ACETATE
Partition coefficient: n-octanol/water. 2,3 a 25 °C (Metodo OECD TG 117)
BCF. 15,3

BUTYLGLYCOL ACETATE
Partition coefficient: n-octanol/water. 1,51

12.4. Mobility in soil.

XYLENE (MIXTURE OF ISOMERS)
Partition coefficient: soil/water. 2,73 equivalent or similar to OECD Guideline 121

CYCLOHEXANE
Partition coefficient: soil/water. 2,89

TETRAHYDROFURAN
Partition coefficient: soil/water. 1,26

METHYL ACETATE
Partition coefficient: soil/water. 0,18

N-BUTYL ACETATE
Partition coefficient: soil/water. < 3

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.
Waste transportation may be subject to ADR restrictions.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, IATA: 1263

14.2. UN proper shipping name.

ADR / RID: PAINT or PAINT RELATED MATERIAL
IMDG: PAINT or PAINT RELATED MATERIAL
IATA: PAINT or PAINT 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: II

14.5. Environmental hazards.

ADR / RID:	NO
IMDG:	NO
IATA:	NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
	Special Provision: -		
IMDG:	EMS: F-E, S-E,	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 353
	Special Instructions:	A3, A72, A192	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

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

Seveso category. P5b FLAMMABLE LIQUIDS

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

Product.

Point *3. Liquid substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/ 2008:*
(a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F;
(b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10;
(c) hazard class 4.1;
(d) hazard class 5.1.

Point *40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to that Regulation or not*.

Contained substance.

Point.	48	TOLUENE Reg. no.:
Point.	59	DICHLOROMETHANE Reg. no.:
Point.	57	CYCLOHEXANE Reg. no.:

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) :

Special finishes.

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

Limit value:	840,00
VOC of product :	727,00

15.2. Chemical safety assessment.

A chemical safety assessment has been performed for the following contained substances.

ETHYL ACETATE

METHYL ETHYL KETONE

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

Flam. Sol. 1	Flammable solid, category 1
Carc. 2	Carcinogenicity, category 2
Repr. 2	Reproductive toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
STOT SE 1	Specific target organ toxicity - single exposure, category 1
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
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
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH019	May form explosive peroxides.
EUH066	Repeated exposure may cause skin dryness or cracking.

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

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5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
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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.

Training for workers:
Worker training should include content, updates and duration depending on the risk profiles assigned to the business sectors they belong.

Classification according to Regulation (EC) Nr. 1272/2008	**Classification procedure**
Flam. Liq. 2, H225	Calculation method
STOT RE 2, H373	Calculation method
Eye Irrit. 2, H319	Calculation method
Skin Irrit. 2, H315	Calculation method
STOT SE 3, H336	Calculation method