



## SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2015/830)

### SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Product name : GRAVOLAQUE  
Product code : GRAV 010.

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

Relevant identified uses: Liquid paint. Only for industrial user use.

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

Registered company name : GRAVOTECH MARKING SAS.  
Address : 56, avenue Jean Jaurès.10600.La Chapelle Saint Luc.France.  
Telephone : +33 (0)3 25 41 65 65. Fax : +33 (0)3 25 79 04 25.  
e-mail : info@gravograph.fr  
http://www.gravograph.com

#### 1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

Association/Organisation : INRS / ORFILA <http://www.centres-antipoison.net>.

### SECTION 2 : HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

##### In compliance with EC regulation No. 1272/2008 and its amendments.

Flammable liquid, Category 3 (Flam. Liq. 3, H226).  
Skin irritation, Category 2 (Skin Irrit. 2, H315).  
Eye irritation, Category 2 (Eye Irrit. 2, H319).  
Skin sensitisation, Category 1 (Skin Sens. 1, H317).  
Carcinogenicity, Category 1B (Carc. 1B, H350).  
Reproductive toxicity, Category 1A (Repr. 1A, H360).  
Specific target organ toxicity (single exposure), Category 3 (STOT SE 3, H336).  
Specific target organ toxicity (repeated exposure), Category 1 (STOT RE 1, H372).  
Specific target organ toxicity (repeated exposure), Category 2 (STOT RE 2, H373).  
Hazardous to the aquatic environment - Chronic hazard, Category 2 (Aquatic Chronic 2, H411).

#### 2.2. Label elements

##### In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS02



GHS07



GHS08



GHS09

Signal Word :

DANGER

Product identifiers :

EC 919-446-0	HYDROCARBONS, C9-C12, N-ALKANES, ISOALKANES, CYCLICS, AROMATICS (2-25%)
EC 215-693-7	LEAD SULFOCHROMATE YELLOW
EC 215-535-7	XYLENE
EC 265-150-3	NAPHTHA (PETROLEUM), HYDROTREATED HEAVY
EC 202-496-6	2-BUTANONE OXIME
EC 205-250-6	COBALT BIS(2-ETHYLHEXANOATE)

Additional labeling :

EUH201	Contains lead. Should not be used on surfaces liable to be chewed or sucked by children. For professional use only.
Hazard statements :	
H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H350	May cause cancer .
H360Df	May damage the unborn child. Suspected of damaging fertility.
H372	Causes damage to organs through prolonged or repeated exposure .
H373	May cause damage to organs through prolonged or repeated exposure (if swallowed).
H411	Toxic to aquatic life with long lasting effects.
Precautionary statements - Prevention :	
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statements - Response :	
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P370 + P378	In case of fire: Use ABC versatile powder to extinguish.
Precautionary statements - Disposal :	
P501	Dispose of contents/container at a disposal facility in accordance with local regulations.



### 2.3. Other hazards

The mixture contains substances classified as 'Substances of Very High Concern' (SVHC)  $\geq 0.1\%$  published by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>  
The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

## SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS



### 3.2. Mixtures

Chemical description: mixture based on additives, fillers, pigments, plasticizers and resin in solvents.



#### Composition :

Identification	(EC) 1272/2008	Note	%
CAS: (64742-82-1) EC: 919-446-0 REACH: 01-2119458049-33  HYDROCARBONS, C9-C12, N-ALKANES, ISOALKANES, CYCLICS, AROMATIC (2-25%)	GHS09, GHS07, GHS08, GHS02 Dgr Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336 STOT RE 1, H372 Aquatic Chronic 2, H411 EUH:066		10 $\leq$ x% < 25
CAS: 1344-37-2 EC: 215-693-7  LEAD SULFOCHROMATE YELLOW	GHS08, GHS09 Dgr Carc. 1B, H350 Repr. 1A, H360Df STOT RE 2, H373 Aquatic Acute 1, H400 M Acute = 1 Aquatic Chronic 1, H410 M Chronic = 1	[1] [2] [6]	10 $\leq$ x% < 25
CAS: 1330-20-7 EC: 215-535-7 REACH: 01-2119488216-32  XYLENE	GHS07, GHS08, GHS02 Dgr Flam. Liq. 3, H226 Asp. Tox. 1, H304 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 4, H332 STOT SE 3, H335	C [1]	10 $\leq$ x% < 25

	STOT RE 2, H373		
CAS: 64742-48-9 EC: 265-150-3 REACH: 01-2119457273-39  NAPHTHA (PETROLEUM), HYDROTREATED HEAVY	GHS07, GHS08, GHS02 Dgr Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336 EUH:066	[1]	5 <= x% < 10
CAS: 123-86-4 EC: 204-658-1 REACH: 01-2119485493-29  N-BUTYL ACETATE	GHS07, GHS02 Wng Flam. Liq. 3, H226 STOT SE 3, H336 EUH:066	[1]	2.5 <= x% < 5
CAS: 123-42-2 EC: 204-626-7 REACH: 01-2119473975-21  4-HYDROXY-4-METHYLPENTAN-2-ONE	GHS07 Wng Eye Irrit. 2, H319	[1]	1 <= x% < 2.5
CAS: (64742-95-6) EC: 918-668-5 REACH: 01-2119455851-35  HYDROCARBONS, C9, AROMATICS	GHS09, GHS07, GHS08, GHS02 Dgr Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H335 STOT SE 3, H336 Aquatic Chronic 2, H411 EUH:066		1 <= x% < 2.5
CAS: 108-65-6 EC: 203-603-9 REACH: 01-2119475791-29  2-METHOXY-1-METHYLETHYL ACETATE	GHS02 Wng Flam. Liq. 3, H226	[1]	1 <= x% < 2.5
CAS: 111-76-2 EC: 203-905-0 REACH: 01-2119475108-36  2-BUTOXYETHANOL	GHS07 Wng Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 4, H332	[1]	0.5 <= x% < 1
CAS: 100-41-4 EC: 202-849-4 REACH: 01-2119489370-35  ETHYLBENZENE	GHS07, GHS08, GHS02 Dgr Flam. Liq. 2, H225 Asp. Tox. 1, H304 Acute Tox. 4, H332 STOT RE 2, H373	[1]	0.25 <= x% < 0.5
CAS: 96-29-7 EC: 202-496-6  2-BUTANONE OXIME	GHS07, GHS05, GHS08 Dgr Acute Tox. 4, H312 Skin Sens. 1, H317 Eye Dam. 1, H318 Carc. 2, H351	[1] [2]	0.25 <= x% < 0.5
CAS: 34590-94-8 EC: 252-104-2 REACH: 01-2119450011-60  DIPROPYLENE GLYCOL MONOMETHYL ETHER		[1]	0.2 <= x% < 0.25
CAS: 22464-99-9 EC: 245-018-1	GHS08 Wng	[2]	x% < 0.2

REACH: 01-2119979088-21	Repr. 2, H361d		
2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT			
CAS: 136-52-7 EC: 205-250-6 REACH: 01-2119524678-29	GHS07, GHS09, GHS08 Wng Skin Sens. 1A, H317 Eye Irrit. 2, H319 Repr. 2, H361f Aquatic Chronic 3, H412 Aquatic Acute 1, H400 M Acute = 1	[2]	x% < 0.2
COBALT BIS(2-ETHYLHEXANOATE)			

(Full text of H-phrases: see section 16)



#### Information on ingredients :

- [1] Substance for which maximum workplace exposure limits are available.
- [2] Carcinogenic, mutagenic or reprotoxic (CMR) substance.
- [6] Substances of very high concern (SVHC).

## SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.  
NEVER induce swallowing by an unconscious person.

### 4.1. Description of first aid measures



#### In the event of exposure by inhalation :

In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest.  
If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.  
If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.



#### In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.  
If there is any redness, pain or visual impairment, consult an ophthalmologist.

#### In the event of splashes or contact with skin :

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.  
Watch out for any remaining product between skin and clothing, watches, shoes, etc.  
In the event of an allergic reaction, seek medical attention.  
If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.



#### In the event of swallowing :

Do not give the patient anything orally.  
Keep the person exposed at rest. Do not force vomiting.  
Seek medical attention immediately, showing the label.

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

No data available.

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

No data available.

## SECTION 5 : FIREFIGHTING MEASURES

Flammable.  
Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

### 5.1. Extinguishing media

Keep packages near the fire cool, to prevent pressurised containers from bursting.



#### Suitable methods of extinction

In the event of a fire, use :  
- sprayed water or water mist  
- multipurpose ABC powder  
- carbon dioxide (CO<sub>2</sub>)  
Prevent the effluent of fire-fighting measures from entering drains or waterways.

#### Unsuitable methods of extinction

In the event of a fire, do not use :  
- water jet

### 5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)

### 5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

## SECTION 6 : ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

#### For non first aid worker

Because of the organic solvents contained in the mixture, eliminate sources of ignition and ventilate the area.

Avoid inhaling the vapors.

Avoid any contact with the skin and eyes.

If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

#### For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

### 6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures

Use drums to dispose of collected waste in compliance with current regulations (see section 13).

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

Clean preferably with a detergent, do not use solvents.

### 6.4. Reference to other sections

No data available.



## SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

Individuals with a history of skin sensitisation should not, under any circumstance, handle this mixture.

Avoid exposure to pregnant women and warn women of child-bearing age of the possible risks

### 7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

Remove contaminated clothing and protective equipment before entering eating areas.



#### Fire prevention :

Handle in well-ventilated areas.

Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.

Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.

Prevent the accumulation of electrostatic charges with connections to earth.

The mixture can become electrostatically charged : always earth during decanting operations. Wear antistatic shoes and clothing and floors should be electrically non-conductive.

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Keep packages tightly closed and away from sources of heat, sparks and naked flames.

Do not use tools which may produce sparks. Do not smoke.

Prevent access by unauthorised personnel.



#### Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

For paint products, avoid breathing dust, particles or vapours from the treatment of surfaces coated with this mixture by dry sanding or by hot working (welding, soldering, cutting, etc).

Avoid inhaling vapors. Carry out any industrial operation which may give rise to this in a sealed apparatus.

Provide vapor extraction at the emission source and also general ventilation of the premises.

Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.

In all cases, recover emissions at source.

Avoid skin and eye contact with this mixture.

Avoid exposure - obtain special instructions before use.

Packages which have been opened must be reclosed carefully and stored in an upright position.

#### Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

Never open the packages under pressure.

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

No data available.

#### Storage

Keep the container tightly closed in a dry, well-ventilated place.

Keep away from all sources of ignition - do not smoke.

Keep well away from all sources of ignition, heat and direct sunlight.

Avoid accumulation of electrostatic charges.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

Store at a temperature between 5 and 30°C.

Storage Period: 24 months.

#### Packaging

Always keep in packaging made of an identical material to the original.

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

No data available.

## SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control parameters

##### Occupational exposure limits :

- European Union (2017/2398, 2017/164, 2009/161, 2006/15/CE, 2000/39/CE, 98/24/CE) :

CAS	VME-mg/m <sup>3</sup> :	VME-ppm :	VLE-mg/m <sup>3</sup> :	VLE-ppm :	Notes :
1330-20-7	221	50	442	100	Peau
108-65-6	275	50	550	100	Peau
111-76-2	98	20	246	50	Peau
100-41-4	442	100	884	200	Peau
34590-94-8	308	50	-	-	Peau

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
1330-20-7	100 ppm	150 ppm		A4; BEI	
123-86-4	150 ppm	200 ppm			
123-42-2	50 ppm				
111-76-2	20 ppm			A3; BEI	
100-41-4	20 ppm			A3; BEI	
34590-94-8	100 ppm	150 ppm		Skin	

- Germany - AGW (BAuA - TRGS 900, 29/01/2018) :

CAS	VME :	VME :	Excess	Notes
1330-20-7		100 ppm 440 mg/m <sup>3</sup>		2(II)
123-86-4		62 ppm 300 mg/m <sup>3</sup>		2(I)
123-42-2		20 ppm 96 mg/m <sup>3</sup>		2(I)
108-65-6		50 ppm 270 mg/m <sup>3</sup>		1(I)
111-76-2		10 ppm 49 mg/m <sup>3</sup>		4(II)
100-41-4		20 ppm 88 mg/m <sup>3</sup>		2(II)
96-29-7		0,3 ppm 1 mg/m <sup>3</sup>		8 (I)
34590-94-8		50 ppm 310 mg/m <sup>3</sup>		1(I)

- Belgium (Arrêté du 09/03/2014, 2014) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
1330-20-7	50 ppm 221 mg/m <sup>3</sup>	100 ppm 442 mg/m <sup>3</sup>		D	
123-86-4	150 ppm 723 mg/m <sup>3</sup>	200 ppm 964 mg/m <sup>3</sup>			
123-42-2	50 ppm 241 mg/m <sup>3</sup>				
108-65-6	50 ppm 275 mg/m <sup>3</sup>	100 ppm 550 mg/m <sup>3</sup>		D	
111-76-2	20 ppm 98 mg/m <sup>3</sup>	50 ppm 246 mg/m <sup>3</sup>		D	
100-41-4	100 ppm 442 mg/m <sup>3</sup>	125 ppm 551 mg/m <sup>3</sup>		D	
34590-94-8	50 ppm 308 mg/m <sup>3</sup>			D	

- France (INRS - ED984 :2016) :

CAS	VME-ppm :	VME-mg/m3 :	VLE-ppm :	VLE-mg/m3 :	Notes :	TMP No :
1344-37-2	-	0.1	-	-	-	1
1330-20-7	50	221	100	442	*	4 Bis, 84, *
123-86-4	150	710	200	940	-	84
123-42-2	50	240	-	-	-	84
108-65-6	50	275	100	550	-	-
111-76-2	10	49	50	246	*	84
100-41-4	20	88.4	100	442	*	84
34590-94-8	50	308	-	-	*	84

- Switzerland (SUVAPRO 2017) :

CAS	VME	VLE	Valeur plafond	Notations
1330-20-7	100 ppm 435 mg/m <sup>3</sup>	200 ppm 870 mg/m <sup>3</sup>		R B
64742-48-9	50 ppm 300 mg/m <sup>3</sup>	100 ppm 600 mg/m <sup>3</sup>		
123-86-4	100 ppm 480 mg/m <sup>3</sup>	200 ppm 960 mg/m <sup>3</sup>		SSC
123-42-2	20 ppm 96 mg/m <sup>3</sup>	40 ppm 192 mg/m <sup>3</sup>		R
108-65-6	50 ppm 275 mg/m <sup>3</sup>	50 ppm 275 mg/m <sup>3</sup>		SSC
111-76-2	10 ppm 49 mg/m <sup>3</sup>	20 ppm 98 mg/m <sup>3</sup>		R B SSC
100-41-4	50 ppm 220 mg/m <sup>3</sup>	50 ppm 220 mg/m <sup>3</sup>		R B OB
34590-94-8	50 ppm 300 mg/m <sup>3</sup>	50 ppm 300 mg/m <sup>3</sup>		

- UK / WEL (Workplace exposure limits, EH40/2005, 2011) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
1330-20-7	50 ppm 220 mg/m <sup>3</sup>	100 ppm 441 mg/m <sup>3</sup>		Sk, BMGV	
123-86-4	150 ppm 724 mg/m <sup>3</sup>	200 ppm 966 mg/m <sup>3</sup>			
123-42-2	50 ppm 241 mg/m <sup>3</sup>	75 ppm 362 mg/m <sup>3</sup>			
108-65-6	50 ppm 274 mg/m <sup>3</sup>	100 ppm 548 mg/m <sup>3</sup>		Sk	
111-76-2	25 ppm 123 mg/m <sup>3</sup>	50 ppm 246 mg/m <sup>3</sup>		Sk, BMGV	
100-41-4	100 ppm 441 mg/m <sup>3</sup>	125 ppm 552 mg/m <sup>3</sup>		Sk	
34590-94-8	50 ppm 308 mg/m <sup>3</sup>	- ppm - mg/m <sup>3</sup>		Sk	

- USA / AIHA WEEL (American Industrial Hygiene Association, Workplace Environmental Exposure Limit, 2010) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
108-65-6	50 ppm				
96-29-7	10 ppm			DSEN	

**Derived no effect level (DNEL) or derived minimum effect level (DMEL):**

2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT (CAS: 22464-99-9)

**Final use:****Workers.**

Exposure method: Ingestion.  
Potential health effects: Long term systemic effects.  
DNEL : 7.9 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 15.75 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 7.9 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 5 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 2.5 mg of substance/m3

DIPROPYLENE GLYCOL MONOMETHYL ETHER (CAS: 34590-94-8)

**Final use:****Workers.**

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 65 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 310 mg of substance/m3

**Final use:****Consumers.**

Exposure method: Ingestion.  
Potential health effects: Long term systemic effects.  
DNEL : 1.67 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 15 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 37.2 mg of substance/m3

2-BUTANONE OXIME (CAS: 96-29-7)

**Final use:****Workers.**

Exposure method: Dermal contact.  
Potential health effects: Short term systemic effects.  
DNEL : 2.5 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 1.3 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 9 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term local effects.  
DNEL : 3.33 mg of substance/m3



**Final use:**

Exposure method:  
Potential health effects:  
DNEL :

**Consumers.**

Dermal contact.  
Short term systemic effects.  
1.5 mg/kg body weight/day

Exposure method:  
Potential health effects:  
DNEL :

Dermal contact.  
Long term systemic effects.  
0.78 mg/kg body weight/day

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Long term systemic effects.  
2.7 mg of substance/m3

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Long term local effects.  
2 mg of substance/m3

## ETHYLBENZENE (CAS: 100-41-4)

**Final use:**

Exposure method:  
Potential health effects:  
DNEL :

**Workers.**

Ingestion.  
Long term systemic effects.  
1.6 mg/kg body weight/day

Exposure method:  
Potential health effects:  
DNEL :

Dermal contact.  
Long term systemic effects.  
180 mg/kg body weight/day

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Short term local effects.  
293 mg of substance/m3

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Long term systemic effects.  
77 mg of substance/m3

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Long term systemic effects.  
15 mg of substance/m3

## 2-BUTOXYETHANOL (CAS: 111-76-2)

**Final use:**

Exposure method:  
Potential health effects:  
DNEL :

**Workers.**

Dermal contact.  
Short term systemic effects.  
89 mg/kg body weight/day

Exposure method:  
Potential health effects:  
DNEL :

Dermal contact.  
Long term systemic effects.  
75 mg/kg body weight/day

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Short term systemic effects.  
663 mg of substance/m3

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Short term local effects.  
246 mg of substance/m3

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Long term systemic effects.  
98 mg of substance/m3

**Final use:**

Exposure method:

**Consumers.**

Ingestion.

Potential health effects: Short term systemic effects.  
DNEL : 13.4 mg/kg body weight/day

Exposure method: Ingestion.  
Potential health effects: Long term systemic effects.  
DNEL : 3.2 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Short term systemic effects.  
DNEL : 44.5 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 38 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Short term systemic effects.  
DNEL : 426 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Short term local effects.  
DNEL : 123 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 49 mg of substance/m3

#### 2-METHOXY-1-METHYLETHYL ACETATE (CAS: 108-65-6)

##### Final use:

##### Workers.

Exposure method: Ingestion.  
Potential health effects: Long term systemic effects.  
DNEL : 1.67 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 153.5 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 54.8 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 275 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 33 mg of substance/m3

#### HYDROCARBONS, C9, AROMATICS (CAS: (64742-95-6))

##### Final use:

##### Workers.

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 25 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 150 mg of substance/m3

##### Final use:

##### Consumers.

Exposure method: Ingestion.  
Potential health effects: Long term systemic effects.  
DNEL : 11 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 11 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 32 mg of substance/m3

#### 4-HYDROXY-4-METHYLPENTAN-2-ONE (CAS: 123-42-2)

**Final use:****Workers.**

Exposure method: Ingestion.  
Potential health effects: Long term systemic effects.  
DNEL : 3.4 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 9.4 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 3.4 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Short term local effects.  
DNEL : 240 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 66.4 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term local effects.  
DNEL : 66.4 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Short term local effects.  
DNEL : 120 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 11.8 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term local effects.  
DNEL : 11.8 mg of substance/m3

#### N-BUTYL ACETATE (CAS: 123-86-4)

**Final use:****Workers.**

Exposure method: Inhalation.  
Potential health effects: Short term systemic effects.  
DNEL : 960 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Short term local effects.  
DNEL : 960 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 480 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term local effects.  
DNEL : 480 mg of substance/m3

**Final use:**

Exposure method:  
Potential health effects:  
DNEL :

**Consumers.**

Inhalation.  
Short term systemic effects.  
859.7 mg of substance/m3

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Short term local effects.  
859.7 mg of substance/m3

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Long term systemic effects.  
102.34 mg of substance/m3

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Long term local effects.  
102.34 mg of substance/m3

## NAPHTHA (PETROLEUM), HYDROTREATED HEAVY (CAS: 64742-48-9)

**Final use:**

Exposure method:  
Potential health effects:  
DNEL :

**Workers.**

Ingestion.  
Long term systemic effects.  
300 mg/kg body weight/day

Exposure method:  
Potential health effects:  
DNEL :

Dermal contact.  
Long term systemic effects.  
300 mg/kg body weight/day

Exposure method:  
Potential health effects:  
DNEL :

Dermal contact.  
Long term systemic effects.  
300 mg/kg body weight/day

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Long term systemic effects.  
1500 mg of substance/m3

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Long term systemic effects.  
900 mg of substance/m3

## XYLENE (CAS: 1330-20-7)

**Final use:**

Exposure method:  
Potential health effects:  
DNEL :

**Workers.**

Ingestion.  
Long term systemic effects.  
1.6 mg/kg body weight/day

Exposure method:  
Potential health effects:  
DNEL :

Dermal contact.  
Long term systemic effects.  
180 mg/kg body weight/day

Exposure method:  
Potential health effects:  
DNEL :

Dermal contact.  
Long term systemic effects.  
108 mg/kg body weight/day

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Short term systemic effects.  
289 mg of substance/m3

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Short term local effects.  
289 mg of substance/m3

Exposure method:  
Potential health effects:  
DNEL :

Inhalation.  
Long term systemic effects.  
77 mg of substance/m3

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 14.8 mg of substance/m<sup>3</sup>

HYDROCARBONS, C9-C12, N-ALKANES, ISOALKANES, CYCLICS, AROMATICS (2-25%) (CAS: (64742-82-1))

**Final use:** **Workers.**  
Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 44 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 330 mg of substance/m<sup>3</sup>

**Final use:** **Consumers.**  
Exposure method: Ingestion.  
Potential health effects: Long term systemic effects.  
DNEL : 26 mg/kg body weight/day

Exposure method: Dermal contact.  
Potential health effects: Long term systemic effects.  
DNEL : 26 mg/kg body weight/day

Exposure method: Inhalation.  
Potential health effects: Long term systemic effects.  
DNEL : 71 mg of substance/m<sup>3</sup>



**Predicted no effect concentration (PNEC):**

COBALT BIS(2-ETHYLHEXANOATE) (CAS: 136-52-7)

Environmental compartment: Soil.  
PNEC : 7.9 mg/kg

Environmental compartment: Fresh water.  
PNEC : 0.00051 mg/l

Environmental compartment: Sea water.  
PNEC : 0.00236 mg/l

Environmental compartment: Fresh water sediment.  
PNEC : 9.5 mg/kg

Environmental compartment: Marine sediment.  
PNEC : 9.5 mg/kg

Environmental compartment: Waste water treatment plant.  
PNEC : 0.37 mg/l

2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT (CAS: 22464-99-9)

Environmental compartment: Soil.  
PNEC : 1.06 mg/kg

Environmental compartment: Fresh water.  
PNEC : 0.36 mg/l

Environmental compartment: Sea water.  
PNEC : 0.036 mg/l

Environmental compartment: Intermittent waste water.  
PNEC : 0.493 mg/l

Environmental compartment: Fresh water sediment.  
PNEC : 6.37 mg/kg

Environmental compartment:	Marine sediment.
PNEC :	0.637 mg/kg
Environmental compartment:	Waste water treatment plant.
PNEC :	71.7 mg/l
DIPROPYLENE GLYCOL MONOMETHYL ETHER (CAS: 34590-94-8)	
Environmental compartment:	Soil.
PNEC :	2.74 mg/kg
Environmental compartment:	Fresh water.
PNEC :	19 mg/l
Environmental compartment:	Sea water.
PNEC :	1.9 mg/l
Environmental compartment:	Intermittent waste water.
PNEC :	190 mg/l
Environmental compartment:	Fresh water sediment.
PNEC :	70.2 mg/kg
Environmental compartment:	Marine sediment.
PNEC :	7.02 mg/kg
Environmental compartment:	Waste water treatment plant.
PNEC :	4168 mg/l
2-BUTANONE OXIME (CAS: 96-29-7)	
Environmental compartment:	Fresh water.
PNEC :	0.256 mg/l
Environmental compartment:	Intermittent waste water.
PNEC :	0.118 mg/l
Environmental compartment:	Waste water treatment plant.
PNEC :	177 mg/l
ETHYLBENZENE (CAS: 100-41-4)	
Environmental compartment:	Soil.
PNEC :	2.68 mg/kg
Environmental compartment:	Fresh water.
PNEC :	0.1 mg/l
Environmental compartment:	Sea water.
PNEC :	0.01 mg/l
Environmental compartment:	Intermittent waste water.
PNEC :	0.1 mg/l
Environmental compartment:	Fresh water sediment.
PNEC :	13.7 mg/kg
Environmental compartment:	Marine sediment.
PNEC :	1.37 mg/kg
Environmental compartment:	Waste water treatment plant.
PNEC :	9.6 mg/l
2-BUTOXYETHANOL (CAS: 111-76-2)	
Environmental compartment:	Soil.
PNEC :	3.13 mg/kg

Environmental compartment:	Fresh water.
PNEC :	8.8 mg/l
Environmental compartment:	Sea water.
PNEC :	0.88 mg/l
Environmental compartment:	Intermittent waste water.
PNEC :	9.1 mg/l
Environmental compartment:	Fresh water sediment.
PNEC :	34.6 mg/kg
Environmental compartment:	Waste water treatment plant.
PNEC :	463 mg/l
Environmental compartment:	Vermivore predators (oral).
PNEC :	20 g/kg

## 2-METHOXY-1-METHYLETHYL ACETATE (CAS: 108-65-6)

Environmental compartment:	Soil.
PNEC :	0.29 mg/kg
Environmental compartment:	Fresh water.
PNEC :	0.635 mg/l
Environmental compartment:	Sea water.
PNEC :	0.0635 mg/l
Environmental compartment:	Intermittent waste water.
PNEC :	6.35 mg/l
Environmental compartment:	Fresh water sediment.
PNEC :	3.29 mg/kg
Environmental compartment:	Marine sediment.
PNEC :	0.329 mg/kg
Environmental compartment:	Waste water treatment plant.
PNEC :	100 mg/l

## 4-HYDROXY-4-METHYLPENTAN-2-ONE (CAS: 123-42-2)

Environmental compartment:	Soil.
PNEC :	0.63 mg/kg
Environmental compartment:	Fresh water.
PNEC :	2 mg/l
Environmental compartment:	Sea water.
PNEC :	0.2 mg/l
Environmental compartment:	Intermittent waste water.
PNEC :	1 mg/l
Environmental compartment:	Fresh water sediment.
PNEC :	9.06 mg/kg
Environmental compartment:	Marine sediment.
PNEC :	0.906 mg/kg
Environmental compartment:	Waste water treatment plant.
PNEC :	82 mg/l

## N-BUTYL ACETATE (CAS: 123-86-4)

Environmental compartment: PNEC :	Soil. 0.0903 mg/kg
Environmental compartment: PNEC :	Fresh water. 0.18 mg/l
Environmental compartment: PNEC :	Sea water. 0.018 mg/l
Environmental compartment: PNEC :	Intermittent waste water. 0.36 mg/l
Environmental compartment: PNEC :	Fresh water sediment. 0.981 mg/kg
Environmental compartment: PNEC :	Marine sediment. 0.0981 mg/kg
Environmental compartment: PNEC :	Waste water treatment plant. 35.6 mg/l
XYLENE (CAS: 1330-20-7)	
Environmental compartment: PNEC :	Soil. 2.31 mg/kg
Environmental compartment: PNEC :	Fresh water. 0.327 mg/l
Environmental compartment: PNEC :	Sea water. 0.327 mg/l
Environmental compartment: PNEC :	Intermittent waste water. 0.327 mg/l
Environmental compartment: PNEC :	Fresh water sediment. 12.46 mg/kg
Environmental compartment: PNEC :	Marine sediment. 12.46 mg/kg
Environmental compartment: PNEC :	Waste water treatment plant. 6.58 mg/l
LEAD SULFOCHROMATE YELLOW (CAS: 1344-37-2)	
Environmental compartment: PNEC :	Fresh water. 0.1 mg/l
Environmental compartment: PNEC :	Sea water. 0.01 mg/l
Environmental compartment: PNEC :	Intermittent waste water. 1 mg/l

## 8.2. Exposure controls

### Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.  
Store personal protective equipment in a clean place, away from the work area.



Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.



#### - Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.



#### - Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Recommended properties :

- Impervious gloves in accordance with standard EN374



#### - Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034 to prevent skin contact.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.



#### - Respiratory protection

Avoid breathing vapours.

If the ventilation is insufficient, wear appropriate breathing apparatus.

When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties



#### General information :

Physical state :	Viscous liquid.
Odour:	Aromatic.



#### Important health, safety and environmental information

pH :	Not relevant.
Boiling point/boiling range :	145 °C.
Flash Point Interval :	23°C <= FP <= 55°C
Vapour pressure (50°C) :	Below 110 kPa (1.10 bar).
Density :	0.95 - 1.15
Water solubility :	Insoluble.
Self-ignition temperature :	200 °C.
% VOC :	46
Viscosity:	669.16 - 562.93 cP (20°C).
Kinematic viscosity:	587 cSt (20°C).
Kinematic viscosity (40°C):	> 20.5 cSt.



#### 9.2. Other information

VOC (g/l) :	483
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## SECTION 10 : STABILITY AND REACTIVITY

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

### 10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes

and nitrogen oxide.

#### 10.4. Conditions to avoid

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

Avoid :

- accumulation of electrostatic charges.
- heating
- heat
- flames and hot surfaces
- exposure to light

#### 10.5. Incompatible materials

Keep away from :

- strong acids
- strong bases
- oxidising material
- alkalis

#### 10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO<sub>2</sub>)

## SECTION 11 : TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

May have reversible effects on the eyes, such as eye irritation which is totally reversible by the end of observation at 21 days.

Splashes in the eyes may cause irritation and reversible damage

Narcotic effects may occur, such as drowsiness, narcosis, decreased alertness, loss of reflexes, lack of coordination or dizziness.

Effects may also occur in the form of violent headaches or nausea, judgement disorder, giddiness, irritability, fatigue or memory disturbance.

May cause an allergic reaction by skin contact.

Presumed human carcinogen.

Known human reproductive toxicant.

May damage the unborn child and suspected of damaging fertility.

Causes severe damage to organs in the event of repeated or prolonged exposure.

May cause severe damage to organs in the event of repeated or prolonged exposure.

#### 11.1.1. Substances

##### Acute toxicity :

COBALT BIS(2-ETHYLHEXANOATE) (CAS: 136-52-7)

Oral route : 2000 < LD50 <= 5000 mg/kg

Dermal route : 2,000 < LD50 <= 5000 mg/kg

Inhalation route (Dusts/mist) : LC50 >= 5 mg/l  
Duration of exposure : 4 h

2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT (CAS: 22464-99-9)

Oral route : LD50 = 2043 mg/kg  
Species : Rat


Dermal route : 2,000 < LD50 <= 5000 mg/kg

Inhalation route (Dusts/mist) : LC50 >= 5 mg/l  
Duration of exposure : 4 h

DIPROPYLENE GLYCOL MONOMETHYL ETHER (CAS: 34590-94-8)

Oral route : 2000 < LD50 <= 5000 mg/kg

Dermal route :	2,000 < LD50 <= 5000 mg/kg
Inhalation route (Vapours) :	LC50 >= 20 mg/l Duration of exposure : 4 h
2-BUTANONE OXIME (CAS: 96-29-7)	
Oral route :	LD50 = 2100 mg/kg Species : Rat
Dermal route :	LD50 = 1100 mg/kg Species : Rat
Inhalation route (Vapours) :	LC50 >= 20 mg/l Duration of exposure : 4 h
ETHYLBENZENE (CAS: 100-41-4)	
Oral route :	LD50 = 3500 mg/kg Species : Rat
Dermal route :	LD50 = 15354 mg/kg Species : Rabbit
Inhalation route (n/a) :	LC50 = 17.2 mg/l Species : Rat Duration of exposure : 4 h
2-BUTOXYETHANOL (CAS: 111-76-2)	
Oral route :	LD50 = 1414 mg/kg Species : Rat
Dermal route :	LD50 = 1060 mg/kg Species : Rabbit
Inhalation route (n/a) :	LC50 = 11 mg/l Species : Rat Duration of exposure : 4 h
2-METHOXY-1-METHYLETHYL ACETATE (CAS: 108-65-6)	
Oral route :	LD50 = 8532 mg/kg Species : Rat
Dermal route :	LD50 = 5100 mg/kg Species : Rat
Inhalation route (n/a) :	LC50 = 30 mg/l Species : Rat Duration of exposure : 4 h
HYDROCARBONS, C9, AROMATICS (CAS: (64742-95-6))	
Oral route :	LD50 = 3492 mg/kg Species : Rat
Dermal route :	LD50 = 3160 mg/kg Species : Rabbit
Inhalation route (n/a) :	LC50 = 6193 mg/l Species : Rat Duration of exposure : 4 h
4-HYDROXY-4-METHYLPENTAN-2-ONE (CAS: 123-42-2)	
Oral route :	LD50 = 4000 mg/kg Species : Rat

Dermal route :	LD50 = 13630 mg/kg Species : Rabbit
Inhalation route (Vapours) :	LC50 >= 20 mg/l Duration of exposure : 4 h
N-BUTYL ACETATE (CAS: 123-86-4)	
Oral route :	LD50 = 12789 mg/kg Species : Rat
Dermal route :	LD50 = 14112 mg/kg Species : Rabbit
Inhalation route (n/a) :	LC50 = 23.4 mg/l Species : Rat Duration of exposure : 4 h
NAPHTHA (PETROLEUM), HYDROTREATED HEAVY (CAS: 64742-48-9)	
Oral route :	LD50 = 15000 mg/kg Species : Rat
Dermal route :	LD50 = 3160 mg/kg Species : Rabbit
Inhalation route (Vapours) :	LC50 >= 20 mg/l Duration of exposure : 4 h
XYLENE (CAS: 1330-20-7)	
Oral route :	LD50 = 2100 mg/kg Species : Rat
Dermal route :	LD50 = 1100 mg/kg Species : Rat
Inhalation route (n/a) :	LC50 = 11 mg/l Duration of exposure : 4 h
LEAD SULFOCHROMATE YELLOW (CAS: 1344-37-2)	
Oral route :	LD50 = 5100 mg/kg Species : Rat
Dermal route :	2,000 < LD50 <= 5000 mg/kg
Inhalation route (Dusts/mist) :	LC50 >= 5 mg/l Duration of exposure : 4 h
HYDROCARBONS, C9-C12, N-ALKANES, ISOALKANES, CYCLICS, AROMATICS (2-25%) (CAS: (64742-82-1))	
Oral route :	2000 < LD50 <= 5000 mg/kg
Dermal route :	2,000 < LD50 <= 5000 mg/kg
Inhalation route (Vapours) :	LC50 >= 20 mg/l Duration of exposure : 4 h
<b>11.1.2. Mixture</b>	
 <b>Acute toxicity :</b>	
Oral route :	No observed effect. 2,000 < LD50 <= 5000 mg/kg
Dermal route :	No observed effect. LD50 = 9988.65 mg/kg
Inhalation route (Dusts/mist) :	No effect.

Duration of exposure : 4 h

LC50 = 99.89 mg/l

**Monograph(s) from the IARC (International Agency for Research on Cancer) :**

CAS 1330-20-7 : IARC Group 3 : The agent is not classifiable as to its carcinogenicity to humans.

**SECTION 12 : ECOLOGICAL INFORMATION**

Toxic to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

**12.1. Toxicity****12.1.1. Substances**

2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT (CAS: 22464-99-9)

Fish toxicity :

LC50 = 270 mg/l

Duration of exposure : 96 h

DIPROPYLENE GLYCOL MONOMETHYL ETHER (CAS: 34590-94-8)

Fish toxicity :

LC50 = 10000 mg/l

Species : Pimephales promelas

Duration of exposure : 96 h

Crustacean toxicity :

EC50 = 1919 mg/l

Species : Daphnia magna

Duration of exposure : 48 h

2-BUTANONE OXIME (CAS: 96-29-7)

Fish toxicity :

LC50 = 843 mg/l

Species : Pimephales promelas

Duration of exposure : 96 h

Crustacean toxicity :

EC50 = 750 mg/l

Species : Daphnia magna

Duration of exposure : 48 h

Algae toxicity :

ECr50 = 83 mg/l

Species : Scenedesmus subspicatus

Duration of exposure : 72 h

ETHYLBENZENE (CAS: 100-41-4)

Fish toxicity :

LC50 = 42.3 mg/l

Species : Pimephales promelas

Duration of exposure : 96 h

Crustacean toxicity :

EC50 = 75 mg/l

Species : Daphnia magna

Duration of exposure : 48 h

Algae toxicity :

ECr50 = 63 mg/l

Species : Chlorella vulgaris

Duration of exposure : 72 h

2-BUTOXYETHANOL (CAS: 111-76-2)

Fish toxicity :

LC50 = 1490 mg/l

Species : Lepomis macrochirus

Duration of exposure : 96 h

Crustacean toxicity :

EC50 = 1815 mg/l

Species : Daphnia magna

Duration of exposure : 48 h

Algae toxicity :

ECr50 = 911 mg/l

Species : Pseudokirchnerella subcapitata

Duration of exposure : 72 h

## 2-METHOXY-1-METHYLETHYL ACETATE (CAS: 108-65-6)

Fish toxicity : LC50 = 161 mg/l  
Species : *Pimephales promelas*  
Duration of exposure : 96 h

Crustacean toxicity : EC50 = 481 mg/l  
Species : *Daphnia* sp.  
Duration of exposure : 48 h

## HYDROCARBONS, C9, AROMATICS (CAS: (64742-95-6))

Fish toxicity : 1 < LC50 <= 10 mg/l  
Duration of exposure : 96 h

Crustacean toxicity : 1 < EC50 <= 10 mg/l  
Duration of exposure : 48 h

Algae toxicity : 1 < ECr50 <= 10 mg/l  
Duration of exposure : 72 h

## 4-HYDROXY-4-METHYLPENTAN-2-ONE (CAS: 123-42-2)

Fish toxicity : LC50 = 420 mg/l  
Species : *Lepomis macrochirus*  
Duration of exposure : 96 h

Crustacean toxicity : EC50 = 9016 mg/l  
Species : *Daphnia magna*  
Duration of exposure : 24 h

Algae toxicity : ECr50 = 530 mg/l  
Species : *Microcystis aeruginosa*

## N-BUTYL ACETATE (CAS: 123-86-4)

Fish toxicity : LC50 = 62 mg/l  
Species : *Leuciscus idus*  
Duration of exposure : 96 h

Crustacean toxicity : EC50 = 73 mg/l  
Species : *Daphnia magna*  
Duration of exposure : 24 h

Algae toxicity : ECr50 = 675 mg/l  
Species : *Scenedesmus subspicatus*  
Duration of exposure : 72 h

## NAPHTHA (PETROLEUM), HYDROTREATED HEAVY (CAS: 64742-48-9)

Fish toxicity : LC50 = 2200 mg/l  
Species : *Pimephales promelas*  
Duration of exposure : 96 h

Crustacean toxicity : EC50 = 1000 mg/l  
Species : *Daphnia magna*  
Duration of exposure : 96 h

## XYLENE (CAS: 1330-20-7)

Fish toxicity : LC50 = 13.5 mg/l  
Species : *Oncorhynchus mykiss*  
Duration of exposure : 96 h

Crustacean toxicity : EC50 = 3.4 mg/l  
Species : *Ceriodaphnia dubia*  
Duration of exposure : 48 h

Algae toxicity : ECr50 = 10 mg/l  
Species : *Skeletonema costatum*

Duration of exposure : 72 h

**LEAD SULFOCHROMATE YELLOW (CAS: 1344-37-2)**Fish toxicity : 0.1 < LC50 <= 1 mg/l  
Factor M = 1  
Duration of exposure : 96 hCrustacean toxicity : 0.1 < EC50 <= 1 mg/l  
Factor M = 1Algae toxicity : 0.1 < ECr50 <= 1 mg/l  
Factor M = 1**HYDROCARBONS, C9-C12, N-ALKANES, ISOALKANES, CYCLICS, AROMATICS (2-25%) (CAS: (64742-82-1))**Fish toxicity : 1 < LC50 <= 10 mg/l  
Duration of exposure : 96 h

Crustacean toxicity : 1 &lt; EC50 &lt;= 10 mg/l

Algae toxicity : 1 &lt; ECr50 &lt;= 10 mg/l

**COBALT BIS(2-ETHYLHEXANOATE) (CAS: 136-52-7)**Fish toxicity : 0.1 < LC50 <= 1 mg/l  
Factor M = 1  
Duration of exposure : 96 h

Crustacean toxicity : Duration of exposure : 48 h

Algae toxicity : Duration of exposure : 72 h

**12.1.2. Mixtures**

No aquatic toxicity data available for the mixture.

**12.2. Persistence and degradability****12.2.1. Substances****COBALT BIS(2-ETHYLHEXANOATE) (CAS: 136-52-7)**

Biodegradability : Rapidly degradable.

**2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT (CAS: 22464-99-9)**

Biodegradability : Rapidly degradable.

**2-BUTANONE OXIME (CAS: 96-29-7)**

Biodegradability : Non-rapidly degradable.

**ETHYLBENZENE (CAS: 100-41-4)**

Biodegradability : Rapidly degradable.

**2-METHOXY-1-METHYLETHYL ACETATE (CAS: 108-65-6)**

Biodegradability : Rapidly degradable.

**HYDROCARBONS, C9, AROMATICS (CAS: (64742-95-6))**

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

**4-HYDROXY-4-METHYLPENTAN-2-ONE (CAS: 123-42-2)**

Biodegradability : Rapidly degradable.

**N-BUTYL ACETATE (CAS: 123-86-4)**Biodegradability : Rapidly degradable.  
DBO5/DCO = 0.79**NAPHTHA (PETROLEUM), HYDROTREATED HEAVY (CAS: 64742-48-9)**

Biodegradability : Rapidly degradable.

## XYLENE (CAS: 1330-20-7)

Biodegradability : Rapidly degradable.

## LEAD SULFOCHROMATE YELLOW (CAS: 1344-37-2)

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

## HYDROCARBONS, C9-C12, N-ALKANES, ISOALKANES, CYCLICS, AROMATICS (2-25%) (CAS: (64742-82-1))

Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

## DIPROPYLENE GLYCOL MONOMETHYL ETHER (CAS: 34590-94-8)

Chemical oxygen demand : DCO = 0.00202 g/g

Biodegradability : Rapidly degradable.

## 2-BUTOXYETHANOL (CAS: 111-76-2)

Chemical oxygen demand : DCO = 2.2 g/g

Five-day biochemical oxygen demand : DBO5 = 0.71 g/g

Biodegradability : Non-rapidly degradable.  
DBO5/DCO = 0.32**12.3. Bioaccumulative potential****12.3.1. Substances**

## 2-ETHYLHEXANOIC ACID, ZIRCONIUM SALT (CAS: 22464-99-9)

Octanol/water partition coefficient : log K<sub>ow</sub> = 2.96

## DIPROPYLENE GLYCOL MONOMETHYL ETHER (CAS: 34590-94-8)

Octanol/water partition coefficient : log K<sub>ow</sub> = -0.06

Bioaccumulation : BCF = 1

## 2-BUTANONE OXIME (CAS: 96-29-7)

Octanol/water partition coefficient : log K<sub>ow</sub> = 0.59

Bioaccumulation : BCF = 5

## ETHYLBENZENE (CAS: 100-41-4)

Octanol/water partition coefficient : log K<sub>ow</sub> = 3.15

Bioaccumulation : BCF = 1

## 2-BUTOXYETHANOL (CAS: 111-76-2)

Octanol/water partition coefficient : log K<sub>ow</sub> = 0.83

Bioaccumulation : BCF = 3

## 2-METHOXY-1-METHYLETHYL ACETATE (CAS: 108-65-6)

Octanol/water partition coefficient : log K<sub>ow</sub> = 0.43

Bioaccumulation : BCF = 1

## 4-HYDROXY-4-METHYLPENTAN-2-ONE (CAS: 123-42-2)

Octanol/water partition coefficient : log K<sub>ow</sub> = -0.34

Bioaccumulation : BCF = 0.5

## N-BUTYL ACETATE (CAS: 123-86-4)

Octanol/water partition coefficient : log K<sub>ow</sub> = 1.78

Bioaccumulation : BCF = 4



XYLENE (CAS: 1330-20-7)

Octanol/water partition coefficient : log K<sub>ow</sub> = 2.77

Bioaccumulation : BCF = 9

#### 12.4. Mobility in soil

No data available.

#### 12.5. Results of PBT and vPvB assessment

No data available.

#### 12.6. Other adverse effects

No data available.



#### German regulations concerning the classification of hazards for water (WGK, AwSV vom 18/04/2017, KBws) :

WGK 3 : Extremely hazardous for water.

## SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

#### 13.1. Waste treatment methods

Do not pour into drains or waterways.

#### Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

#### Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.



#### Codes of wastes (Decision 2014/955/EC, Directive 2008/98/EEC on hazardous waste) :

08 01 11 \* waste paint and varnish containing organic solvents or other dangerous substances

## SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2017 - IMDG 2016 - ICAO/IATA 2017).

#### 14.1. UN number

1263

#### 14.2. UN proper shipping name

UN1263=PAINT (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) or PAINT RELATED MATERIAL (including paint thinning and reducing compound)

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

- Classification :



3

#### 14.4. Packing group

III

#### 14.5. Environmental hazards

- Environmentally hazardous material :



#### 14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	3	F1	III	3	30	5 L	163 367 650	E1	3	D/E
IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ			
	3	-	III	5 L	F-E,S-E	163 223 367 955	E1			
IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ	
	3	-	III	355	60 L	366	220 L	A3 A72 A192	E1	
	3	-	III	Y344	10 L	-	-	A3 A72 A192	E1	

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available.

## SECTION 15 : REGULATORY INFORMATION

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

#### - Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2018/1480 (ATP 13)

#### - Container information:

No data available.

#### - Usage restrictions apply to the product : See annex XVII of EC regulation No. 1907/2006.

For professional users only.

#### - Labelling for VOCs present in varnishes, paints and in vehicle refinishing products (2004/42/EC) :

The permitted European level of VOC in this ready-to-use product is limited to 569 g/l.

The permitted European level of VOC in the ready-to-use product (category IIAi) is 600 g/l maximum (2007).

#### - Particular provisions :

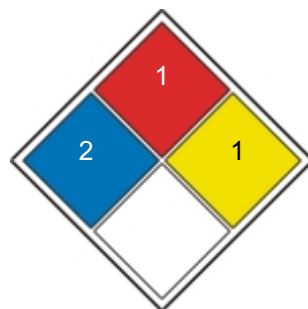
No data available.

#### - German regulations concerning the classification of hazards for water (WGK, AwSV vom 18/04/2017, KBws) :

WGK 3 : Extremely hazardous for water.

#### - Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704) :

NFPA 704, Labelling: Health=2 Inflammability=1 Instability/Reactivity=1 Specific Risk=none



#### - Swiss ordinance on the incentive tax on volatile organic compounds :

108-65-6	acétate de 1-méthoxy-2-propyle
123-86-4	acétate de n-butyle
123-42-2	4-hydroxy-4-méthylpentane-2-one(diacétone-alcool)
111-76-2	2-n-butoxyéthanol
100-41-4	éthylbenzène
34590-94-8	2-(3-méthoxypropoxy)propane-1-ol
1330-20-7	xylènes (mélanges d'isomères)

### 15.2. Chemical safety assessment

No data available.

## SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions. It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations. The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

**Wording of the phrases mentioned in section 3 :**

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H350	May cause cancer .
H351	Suspected of causing cancer .
H360Df	May damage the unborn child. Suspected of damaging fertility.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H372	Causes damage to organs through prolonged or repeated exposure .
H373	May cause damage to organs through prolonged or repeated exposure .
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
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.

**Abbreviations :**

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

CMR: Carcinogenic, mutagenic or reprotoxic.

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

WGK : Wassergefährdungsklasse (Water Hazard Class).

GHS02 : Flame

GHS07 : Exclamation mark

GHS08 : Health hazard

GHS09 : Environment

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.