



PIGAL s.r.l.

Revision nr. 12

Dated 07/02/2018

ZINCO SCURO SPRAY

Printed on 26/09/2018

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Safety data sheet

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

1.1. Product identifier

Code: C00131-(04640 e seg.)
Product name: ZINCO SCURO SPRAY

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

Intended use: Protective/antirust, resins and solvents based "Aerosol".

Identified Uses	Industrial	Professional	Consumer
	-	-	✓
	-	✓	-

1.3. Details of the supplier of the safety data sheet

Name: PIGAL s.r.l.
Full address: Via G. Rossa, 2
District and Country: 40053 VALSAMOGGIA - Crespellano (BO)
ITALIA

Tel. +39 051969068

Fax +39 051969353

e-mail address of the competent person

responsible for the Safety Data Sheet: health.safety@pigal.it; pigalab@pigal.it

1.4. Emergency telephone number

For urgent inquiries refer to: +39 051969068 ore ufficio/office hours (8.30-13; 14-17.30)
118 (contattare il centro antiveleni più vicino)/please contact your near local poison control center

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:

Aerosol, category 1	H222 H229	Extremely flammable aerosol. Pressurised container: may burst if heated.
Specific target organ toxicity - repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Serious eye damage, category 1	H318	Causes serious eye damage.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.
Hazardous to the aquatic environment, chronic toxicity, category 2	H411	Toxic to aquatic life with long lasting effects.

2.2. Label elements

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

ZINCO SCURO SPRAY

Hazard pictograms:



Signal words:

Danger

Hazard statements:

H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H373	May cause damage to organs through prolonged or repeated exposure.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements:

P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe spray.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTRE / doctor / . . . if you feel unwell.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P501	Dispose of contents / container to local regulations.

Contains:	XYLENE (MIXTURE OF ISOMERS) ISOBUTYL ALCOHOL C6-7 hydrocarbons - n-alkanes, isoalkanes, cyclic, <5% n-Hexane N-BUTYL ACETATE
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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:

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



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Identification

x = Conc. %

Classification 1272/2008 (CLP)

Liquefied petroleum gas

CAS 68476-40-4

 $50 \leq x < 54$ Flam. Gas 1 H220, Press.
Gas H280, Note H K U

EC 270-681-9

INDEX 649-199-00-1

Reg. no. 01-2119486557-22

C6-7 hydrocarbons - n-alkanes, isoalkanes, cyclic, <5% n-Hexane

CAS -

 $8,5 \leq x < 10$ Flam. Liq. 2 H225, Asp. Tox.
1 H304, STOT SE 3 H336,
Aquatic Chronic 2 H411,
EUH066

EC 926-605-8

INDEX -

Reg. no. 01-2119486291-36

ZINC POWDER (STABILIZED) (100% - metallic element)

CAS 7440-66-6

 $9 \leq x < 10,5$ Aquatic Acute 1 H400 M=1,
Aquatic Chronic 1 H410 M=1

EC 231-175-3

INDEX 030-001-01-9

Reg. no. 01-2119467174-37

XYLENE (MIXTURE OF ISOMERS)

CAS 1330-20-7

 $5 \leq x < 6$ 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

BARIUM SULFATE

CAS 7727-43-7

 $4,5 \leq x < 5$ Substance with a community workplace
exposure limit.

EC 231-784-4

INDEX -

Reg. no. 01-2119491274-35

1-METHOXY-2-PROPANOL

CAS 107-98-2

 $4,5 \leq x < 5$ Flam. Liq. 3 H226, STOT SE
3 H336

EC 203-539-1

INDEX 603-064-00-3

Reg. no. 01-2119457435-35

ETHYL ACETATE

CAS 141-78-6

 $4,5 \leq x < 5$ Flam. Liq. 2 H225, Eye Irrit. 2
H319, STOT SE 3 H336,
EUH066

EC 205-500-4

INDEX 607-022-00-5

Reg. no. 01-2119475103-46

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

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

Direct contact with the skin (of the pure product): wash with plenty of water and soap.

Ingestion: not dangerous. It is possible to administer activated carbon in water or medicinal mineral vaseline oil.

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If overheated, aerosol cans can deform, explode and be propelled considerable distances. Put a protective helmet on before approaching the fire. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear.

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

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. Send away individuals who are not suitably equipped. Wear protective gloves / protective clothing / eye protection / face protection.

6.2. Environmental precautions

Do not disperse in the environment.

6.3. Methods and material for containment and cleaning up

Use inert absorbent material to soak up leaked product. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.



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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

Avoid bunching of electrostatic charges. Do not spray on flames or incandescent bodies. 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. Do not eat, drink or smoke during use. Do not breathe spray.

7.2. Conditions for safe storage, including any incompatibilities

Store in a place where adequate ventilation is ensured, away from direct sunlight at a temperature below 50°C / 122°F, away from any combustion sources.

7.3. Specific end use(s)

Both for consumer and professional user:

- Keep away from heat, sparks, flames
- Do not use on hot surfaces or exposed to sunlight
- Do not breathe spray / vapors
- Avoid contact with eyes, skin, clothing
- Do not eat, drink or smoke during use
- Do not use in confined spaces and / or limited
- Avoid overuse of the product to avoid creating accumulations of flammable gas in the air
- Use at a distance of 20 cm from the surface to be treated to prevent leakage in the air
- Spray for short intervals, and make sure the presence of good ventilation after use.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

DEU	Deutschland	MAK-und BAT-Werte-Liste 2012
ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
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
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
EU	OEL EU	Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 91/322/EEC.
	TLV-ACGIH	ACGIH 2016

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Liquefied petroleum gas					
Threshold Limit Value					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	DEU	2400	1000		
TLV-ACGIH			1000		

C6-7 hydrocarbons - n-alkanes, isoalkanes, cyclic, <5% n-Hexane					
Threshold Limit Value					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
VLEP	ITA	72	20		
OEL	EU	400	115		
TLV-ACGIH		344	100		

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	1301 mg/kg				
Inhalation			VND	1131 mg/m3			VND	5306 mg/m3
Skin			VND	1377 mg/kg			VND	13964 mg/kg

XYLENE (MIXTURE OF ISOMERS)					
Threshold Limit Value					
Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	440	100	880	200
MAK	DEU	440	100	880	200
VLA	ESP	221	50	442	100
WEL	GBR	220	50	441	100
TLV	GRC	435	100	650	150
VLEP	ITA	221	50	442	100
OEL	EU	221	50	442	100
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
Normal value for marine water sediment	12,46	mg/kg
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

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				1,6 mg/kg/d				
Inhalation	174 mg/m3	174 mg/m3		14,8 mg/m3	289 mg/m3	289 mg/kg		77 mg/m3
Skin				108 mg/kg/d		180 mg/kg/d		

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N-BUTYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	DEU	480	100	960	200
WEL	GBR	724	150	966	200
TLV	GRC	710	150	950	200
TLV-ACGIH			150		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 sed
Normal value for marine water sediment	0,0981	mg/kg sed
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

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	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

ETHYL ACETATE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	DEU		400		800
VLA	ESP		400		
WEL	GBR		200		400
TLV	GRC	1400	400		
TLV-ACGIH		1441	400		

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,26	mg/l
Normal value in marine water	0,026	mg/l
Normal value for fresh water sediment	1,25	mg/kg
Normal value for marine water sediment	0,125	mg/kg
Normal value for water, intermittent release	1,65	mg/l
Normal value of STP microorganisms	650	mg/l
Normal value for the food chain (secondary poisoning)	0,2	g/kg
Normal value for the terrestrial compartment	0,24	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	4,5 mg/kg				
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			VND	63 mg/kg

1-METHOXY-2-PROPANOL

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	370	100	740	200
MAK	DEU	370	100	740	200
VLA	ESP	375	100	568	150

SKIN

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WEL	GBR	375	100	560	150	SKIN		
TLV	GRC	360	100	1080	300			
GVI	HRV	375	100	568	150	SKIN		
VLEP	ITA	375	100	568	150	SKIN		
OEL	EU	375	100	568	150	SKIN		
TLV-ACGIH		369	100	553	150			
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				41,6		mg/kg		
Normal value for marine water sediment				4,17		mg/kg		
Normal value for water, intermittent release				100		mg/l		
Normal value of STP microorganisms				100		mg/l		
Normal value for the terrestrial compartment				2,47		mg/kg		
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				3,3 mg/kg bw/d				
Inhalation		43,9 mg/m3			553,5 mg/m3			369 mg/m3
Skin				18,1 mg/kg bw/d				50,6 mg/kg bw/d
BARIUM SULFATE								
Threshold Limit Value								
Type	Country	TWA/8h		STEL/15min				
		mg/m3	ppm	mg/m3	ppm			
MAK	DEU	1,5				RESP		
VLA	ESP	10						
WEL	GBR	4						
GVI	HRV	10				INHAL		
GVI	HRV	4				RESP		
VLEP	ITA	0,5						
OEL	EU	0,5						
TLV-ACGIH		5						
Predicted no-effect concentration - PNEC								
Normal value in fresh water				0,115		mg/l		
Normal value for fresh water sediment				600,4		mg/kg		
Normal value of STP microorganisms				62,2		mg/l		
Normal value for the terrestrial compartment				207,7		mg/kg		
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				13000 mg/kg bw/d				
Inhalation				10 mg/m3			10 mg/m3	10 mg/m3
ISOBUTYL ALCOHOL								
Threshold Limit Value								
Type	Country	TWA/8h		STEL/15min				
		mg/m3	ppm	mg/m3	ppm			
AGW	DEU	310	100	310	100			

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MAK	DEU	310	100	310	100
VLA	ESP	154	50		
WEL	GBR	154	50	231	75
TLV	GRC	300	100	300	100
GVI	HRV	154	50	231	75
TLV-ACGIH		152	50		

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,4	mg/l
Normal value in marine water	0,04	mg/l
Normal value for fresh water sediment	1,52	mg/kg
Normal value for marine water sediment	0,152	mg/kg
Normal value for water, intermittent release	11	mg/l
Normal value for the terrestrial compartment	0,0699	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			25 mg/kg bw/d	25 mg/kg bw/d				
Inhalation			55 mg/m3	55 mg/m3			310 mg/m3	310 mg/m3

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics.

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral								11 mg/kg bw/d
Inhalation				32 mg/m3				150 mg/m3
Skin				11 mg/kg bw/d				25 mg/kg bw/d

ZINC OXIDE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	DEU	1		1	
VLA	ESP	10			
TLV	GRC	5		10	
TLV-ACGIH		2		10	RESP

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,0206	mg/l
Normal value in marine water	0,0061	mg/l
Normal value for fresh water sediment	117,8	mg/kg
Normal value for marine water sediment	56,5	mg/kg
Normal value of STP microorganisms	0,052	mg/l
Normal value for the terrestrial compartment	35,6	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	0,83 mg/kg/d				
Inhalation			VND	1,3 mg/m3			VND	2,5 mg/m3
Skin			VND	8,3 mg/kg/d			VND	8,3 mg/kg/d

Legend:

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(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.

ZINC POWDER (STABILIZED)

MAK: 0.1 mg / m³ Peak limitation category: I (4) (inhalable fraction)

MAK: 2 mg / m³ Peak limitation category: I (2) (respirable fraction)

risk group for pregnancy: C (DFG 2009)

8.2. Exposure controls

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

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

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

Provide an emergency shower with face and eye wash station.

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

Nitrile glove - Thickness: 0,40 mm - Permeation time:> 480 min.

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.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight 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, a mask with a type AX filter combined with a type P filter should be worn (see standard EN 14387).

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.

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	aerosol
Colour	silver
Odour	characteristic
Odour threshold	Not available
pH	Not available
Melting point / freezing point	< -100 °C
Initial boiling point	< -40 °C
Boiling range	Not available
Flash point	< -80 °C
Evaporation Rate	Not available
Flammability of solids and gases	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	1,8 % (V/V)

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Upper explosive limit	9,5 % (V/V)
Vapour pressure	Not available
Vapour density	> 2 (propellente)
Relative density	0,71 g/l
Solubility	insoluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not available
Oxidising properties	Not available

9.2. Other information

VOC (Directive 2010/75/EC) :	74,44 % - 528,52 g/litre
VOC (volatile carbon) :	0
Can pressure:	3.2 bar after filling at 20°C

SECTION 10. Stability and reactivity**10.1. Reactivity**

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

N-BUTYL ACETATE: decomposes readily with water, especially when warm.

ETHYL ACETATE: decomposes slowly into acetic acid and ethanol under the effect of light, air and water.

1-METHOXY-2-PROPANOL: absorbs and dissolves in water and in organic solvents, dissolves various plastic materials; it is stable but with air it may slowly form explosive peroxides.

ISOBUTYL ALCOHOL - It reacts with aluminum, strong oxidants, such as chromium trioxide forming flammable / explosive gas (hydrogen). Attacks some forms of plastic, rubber and coatings.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

ZINC POWDER (STABILIZED): risk of explosion on contact with: ammonium nitrate, ammonium sulphide, barium peroxide, lead nitride, chlorates, chromium trioxide, sodium hydroxide solutions, oxidising agents, performic acid, acids, tetrachloromethane, water. May react dangerously with alkali hydroxides, bromine pentafluoride, calcium chloride solution, fluorine, hexachloroethane, nitrobenzene, potassium dioxide, carbon disulphide, silver. Reacts with acids and strong alkalis developing hydrogen.

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.



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10.4. Conditions to avoid

Avoid overheating.

ZINC POWDER (STABILIZED): Upon heating, toxic fumes are formed.

N-BUTYL ACETATE: avoid exposure to moisture, sources of heat and naked flames.

10.5. Incompatible materials

Strong reducing or oxidising agents, strong acids or alkalis, hot material.

ZINC POWDER (STABILIZED): water, strong alkalis and acids.

N-BUTYL ACETATE: water, nitrates, strong oxidising agents, acids and alkalis and potassium tert-butoxide.

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information

11.1. Information on toxicological effects

ZINC POWDER (STABILIZED) - The substance can be absorbed into the body by inhalation and by swallowed. Vapours evaporation at 20 ° C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when aerodisperso. Inhalation of fumes may cause a particular fever known as metal fume fever. The effects may be delayed (see Notes). Repeated or prolonged contact with skin may cause dermatitis.

ACUTE HAZARDS / SYMPTOMS

INHALATION Metallic taste and metal fume fever. Symptoms may be delayed.

SKIN Dry skin.

Ingestion Abdominal pain. Nausea. Vomiting.

NOTES: Zinc may contain trace concentrations of arsenic to which the development of hydrogen can also form toxic arsine gas (see ICSC 0001 and ICSC 0222). Reacts violently with fire extinguishing agents such as water, halogenated, foam and carbon dioxide. The symptoms of metal fume fever do not become manifest until several hours later. Rinse thoroughly with water contaminated clothes (fire hazard).

Liquefied PETROLEUM GAS - The substance can be absorbed into the body by a loss inalazione. Causa liquid evaporates very quickly displacing the air and causing a serious risk of suffocation when in chiuso. Una Rapid evaporation of the liquid may cause frostbite.

The substance may cause effects on the central nervous system.

ACUTE HAZARDS / SYMPTOMS

INHALATION Drowsiness. Unconsciousness.

SKIN ON CONTACT WITH LIQUID: FREEZING.

EYE CONTACT WITH LIQUID: FREEZING.

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

XYLENE (MIXTURE OF ISOMERS)

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

ISOBUTYL ALCOHOL

The substance can be absorbed into the body by inhalation of its vapor and by ingestion.

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C6-7 hydrocarbons - n-alkanes, isoalkanes, cyclic, <5% n-Hexane
The substance can be absorbed into the body by inhalation of its vapor and by ingestion.

1-METHOXY-2-PROPANOL

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

N-BUTYL ACETATE

WORKERS: inhalation; contact with the skin.

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

XYLENE (MIXTURE OF ISOMERS)

Toxic action on the central nervous system (encephalopathies); irritating action on skin, conjunctiva, cornea and respiratory system.

ISOBUTYL ALCOHOL

The substance is irritating to the skin and is severely irritating to the eyes. Exposure far above the OEL could cause lowering of consciousness. If this liquid is swallowed, aspiration into the lungs may result in chemical pneumonitis.

The liquid defats the skin.

1-METHOXY-2-PROPANOL

The main route of entry is the skin, while the respiratory route is less important, given the low vapor pressure of the product. Above 100 ppm there is irritation of the ocular, nasal and oropharyngeal mucosa. At 1000 ppm, disturbances are noted in the balance and severe irritation of the eyes. The clinical and biological tests performed on the exposed volunteers revealed no abnormalities. Acetate produces more skin and eye irritation by direct contact. No chronic effects on humans are reported.

ETHYL ACETATE

Inhalation of vapors can irritate the upper respiratory tract; DERMA: Contact with skin may cause moderate irritation; EYES: contact with eyes causes irritation; Symptoms: redness, swelling, tearing.

INGESTION: causes abdominal pain with nausea and vomiting.

N-BUTYL ACETATE

In humans the substance vapors cause irritation of the eyes and nose. In the case of repeated exposures, skin irritation, dermatosis (with dryness and cracking of the skin) and keratitis occur.

Interactive effects

XYLENE (MIXTURE OF ISOMERS)

Alcohol intake interferes with the metabolism of the substance, inhibiting it. The consumption of ethanol (0.8 g / kg) before a 4-hour exposure to xylene steams (145 and 280 ppm) causes a 50% decrease in metabolic acid excretion, whereas the concentration of xylene salt in the blood about 1.5-2 times. At the same time there is an increase in secondary side effects of ethanol. The xylenes metabolism is increased by enzymatic inducers such as phenobarbital and 3-methyl-colantrene. Aspirin and xylenes mutually inhibit their conjugation with glycine, which results in a decrease in urinary metabolic acid excretion. Other industrial products can interfere with the xylenes metabolism.

N-BUTYL ACETATE

A case of acute intoxication was reported in a 33-year-old worker in a tank cleaning operation with a preparation containing xylenes, butyl acetate and ethylene glycol acetate. The subject had conjunctival and upper respiratory tract irritation, somnolence and motor coordination disorders, resolved within 5 hours. Symptoms are attributed to poisoning from mixed xylenes and butyl acetate, with a possible synergistic effect responsible for neurological effects. Cases of vacuolar keratitis are reported in workers exposed to a mixture of vapors of butyl acetate and isobutanol, but with the uncertainty about the responsibility of a particular solvent (INRC, 2011).

ACUTE TOXICITY

LC50 (Inhalation - vapours) of the mixture:LC50 (Inhalation - vapours) of the mixture:

> 20 mg/l

LC50 (Inhalation - mists / powders) of the mixture:LC50 (Inhalation - mists / powders) of the mixture:

Not classified (no significant component)

LD50 (Oral) of the mixture:LD50 (Oral) of the mixture:

Not classified (no significant component)

LD50 (Dermal) of the mixture:LD50 (Dermal) of the mixture:

>2000 mg/kg



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XYLENE (MIXTURE OF ISOMERS)

2000 mg/kg Rattus

LD50 (Oral)

2000 ml/kg Rabbit

LD50 (Dermal)

5 mg/l/4h Rattus

LC50 (Inhalation)

BARIUM SULFATE

> 3000 mg/kg Mouse

LD50 (Oral)

ISOBUTYL ALCOHOL

2460 mg/kg Rat

LD50 (Oral)

3400 mg/kg Rabbit

LD50 (Dermal)

19200 mg/l/4h (Ratto) di vapore/polvere/aerosol/fumo

LC50 (Inhalation)

C6-7 hydrocarbons - n-alkanes, isoalkanes, cyclic, <5% n-Hexane

> 5000 mg/kg Rat

LD50 (Oral)

> 2000 mg/kg Rabbit

LD50 (Dermal)

> 20 mg/l Rat

LC50 (Inhalation)

1-METHOXY-2-PROPANOL

7200 mg/kg Rat

LD50 (Oral)

13000 mg/kg Rabbit

LD50 (Dermal)

ETHYL ACETATE

4100 mg/kg Rabbit

LD50 (Oral)

> 18000 mg/kg Rabbit

LD50 (Dermal)

> 22,5 mg/l/6h Rat

LC50 (Inhalation)

N-BUTYL ACETATE

10770 mg/kg ratto

LD50 (Oral)

5000 mg/kg ratto

LD50 (Dermal)

21 mg/l/4h (ratto) di vapore/polvere/aerosol/fumo

LC50 (Inhalation)

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics.

3500 mg/kg Rat

LD50 (Oral)

3200 mg/kg Rabbit

LD50 (Dermal)

6200 mg/l/4h Rat

LC50 (Inhalation)

ZINC OXIDE

> 5000 mg/kg Rat

LD50 (Oral)

> 5700 mg/m3 Rat/4h

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LC50 (Inhalation)

C6-7 hydrocarbons - n-alkanes, isoalkanes, cyclic, <5% n-Hexane

INGESTION - Minimally toxic. Based on test data for substances of similar structure. Test (s) equivalent or similar to OECD guidelines 401. INHALATION - Minimally toxic, based on test data for substances of similar structure. Test (s) equivalent or similar to OECD guidelines 403. Dermal - Minimally toxic, based on test data for substances of similar structure. Test (s) equivalent or similar to OECD Guidelines 402.

SKIN CORROSION / IRRITATION

Causes skin irritation

C6-7 hydrocarbons - n-alkanes, isoalkanes, cyclic, <5% n-Hexane

It can dry out the skin, promoting discomfort and dermatitis. Based on test data for substances of similar structure. Test (s) equivalent or similar to OECD guidelines 404.

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

C6-7 hydrocarbons - n-alkanes, isoalkanes, cyclic, <5% n-Hexane

May cause mild, short-term eye disorders. Based on test data for substances of similar structure. Test (s) equivalent or similar to OECD guidelines 405.

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

XYLENE (MIXTURE OF ISOMERS)

Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC).

The US Environmental Protection Agency (EPA) claims that "data were inadequate for an assessment of carcinogenic potential".

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

ETHYL ACETATE

Not significant toxicity. Two generations fertility study - mouse (oral exposure):

NOAEL: 13800 mg / kg;

NOAEL F1: < 20700 mg / kg.

NOAEL(oral, 90d): 900 mg / kg (Rat)

NOEC(Inhal., 90d): 1,28 mg / l (Rat).

STOT - SINGLE EXPOSURE

May cause drowsiness or dizzinessMay cause drowsiness or dizziness

C6-7 hydrocarbons - n-alkanes, isoalkanes, cyclic, <5% n-Hexane

May cause drowsiness and dizziness.

STOT - REPEATED EXPOSURE

May cause damage to organs

ASPIRATION HAZARD

Excluded because the aerosol does not allow the accumulation of a significant amount of product in the mouth

SECTION 12. Ecological information



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

12.1. Toxicity

ETHYL ACETATE

Toxicity to microorganisms - NOEC (16h): 650 mg/l (Pseudomonas putida)

**ZINC POWDER
(STABILIZED)**

LC50 - for Fish 7,1 mg/l/96h Nothobranchius guentheri
EC50 - for Crustacea 2,8 mg/l/48h Daphnia magna

**XYLENE (MIXTURE OF
ISOMERS)**

LC50 - for Fish 8,2 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea 75,5 mg/l/24h Daphnia magna

ISOBUTYL ALCOHOL

LC50 - for Fish 1,43 mg/l/96h Pimephales promelas

Liquefied petroleum gas

EC50 - for Crustacea 14,22 mg/l/48h daphnia magna

**C6-7 hydrocarbons - n-alkanes,
isoalkanes, cyclic, <5% n-Hexane**

LC50 - for Fish 12 mg/l Oncorhynchus mykiss (trout arcobaleno)
EC50 - for Crustacea 3 mg/l Daphnia magna
EC50 - for Algae / Aquatic Plants 55 mg/l/72h pseudokirchneriella subcapitata

ETHYL ACETATE

LC50 - for Fish 230 mg/l/96h Pimephales promelas
EC50 - for Crustacea 260 mg/l/48h daphnia pulex
EC50 - for Algae / Aquatic Plants > 100 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Fish 230 mg/l Pimephales Promelas
Chronic NOEC for Crustacea 2,4 mg/l daphnia magna
Chronic NOEC for Algae / Aquatic Plants > 100 mg/l Desmodesmus subspicatus

N-BUTYL ACETATE

LC50 - for Fish 62 mg/l/96h Brachidanio rerio
EC50 - for Crustacea 205 mg/l (24 h) ! Daphnia magna
EC50 - for Algae / Aquatic Plants 675 mg/l/72h Scenedesmus subspicatus

ZINC OXIDE

LC50 - for Fish 1,1 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea 0,413 mg/l/48h Dafnia - Ceriodaphnia dubia
EC50 - for Algae / Aquatic Plants 0,136 mg/l/72h Pseudokirchneriella subcapitata

12.2. Persistence and degradability

The paraffinic hydrocarbons fraction may be considered biodegradable in water and in air. They distribute mostly in the air. The small non biodegradable amount which spreads into water tends to accumulate in fish.

XYLENE (MIXTURE OF ISOMERS)

Rapidly biodegradable

BARIUM SULFATE

Solubility in water

0,1 - 100 mg/l

Biodegradability: Information not available

C6-7 hydrocarbons - n-alkanes, isoalkanes, cyclic, <5% n-Hexane

Rapidly biodegradable

ETHYL ACETATE

Solubility in water

80000 mg/l

Rapidly biodegradable

N-BUTYL ACETATE

Rapidly biodegradable

12.3. Bioaccumulative potential

Liquefied petroleum gas

Partition coefficient: n-octanol/water

< 2,8 -

ETHYL ACETATE

Partition coefficient: n-octanol/water
BCF

0,68 mg/l

< 30 -

N-BUTYL ACETATE

Partition coefficient: n-octanol/water

< 2,06

12.4. Mobility in soil

C6-7 hydrocarbons - n-alkanes, isoalkanes, cyclic, <5% n-Hexane

The substance is highly volatile and rapidly dispersed in the air. You do not presumed to be parted in sediments or, rather, as solid suspended in wastewater.

ETHYL ACETATE

Final destination of the product: water and air.

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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

The valid EEC waste code are largely source-related; the manufacturer is, therefore, unable to specify waste code for products used in various sectors.
CER-code (suggested): 16 05 08; 08 01 11.

REGULATION (EU) No. 1357/2014: HP3 - Flammable, HP 14 - Ecotoxic, HP4 - Irritant, HP5 - Specific target organ toxicity (STOT) / Aspiration toxicity.

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, 1950
IATA:

14.2. UN proper shipping name

ADR / RID: AEROSOLS
IMDG: AEROSOLS (C6-
7 hydrocarbons -
n-alkanes,
isoalkanes,
cyclic, <5% n-
Hexane)
IATA: AEROSOLS,
FLAMMABLE

14.3. Transport hazard class(es)

ADR / RID:	Class: 2	Label: 2.1
IMDG:	Class: 2	Label: 2.1
IATA:	Class: 2	Label: 2.1



14.4. Packing group

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ADR / RID, IMDG, -
IATA:

14.5. Environmental hazards

ADR / RID: Environmentally
Hazardous

IMDG: Marine Pollutant

IATA: NO



For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

ADR / RID:	HIN - Kemler: --	Limited Quantities: 1 L	Tunnel restriction code: (D)
	Special Provision: -		
IMDG:	EMS: F-D, S-U	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 100 Kg	Packaging instructions: 130
	Pass.:	Maximum quantity: 25 Kg	Packaging instructions: 130
	Special Instructions:	A802	

14.7. Transport in bulk according to Annex II of Marpol 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 - Directive 2012/18/EC: P3a-E2

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

Product
Point 40

Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisation (Annex XIV REACH)

None



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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.

15.2. Chemical safety assessment

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

SECTION 16. Other information

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

Flam. Gas 1	Flammable gas, category 1
Aerosol 1	Aerosol, category 1
Aerosol 3	Aerosol, category 3
Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Press. Gas	Pressurised gas
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 Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.



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H280	Contains gas under pressure; may burst if heated.
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.
H318	Causes serious eye damage.
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.
H411	Toxic to aquatic life with long lasting effects.
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

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament

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11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

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

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

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

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

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 04 / 07 / 08 / 09 / 10 / 11 / 12 / 13 / 14 / 15 / 16.