

**CENTRO DISTRIBUZIONE UTENSILI S.p.a****IDROVAP H110**

Revision nr. 6

Dated 24/01/2024

Printed on 25/01/2024

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Replaced revision:5 (Dated: 09/08/2019)

EN

## Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

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

#### 1.1. Product identifier

Code: **U05175**  
Product name: **IDROVAP H110**  
UFI: **88C0-808W-V005-AG28**

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

Intended use: **Hyperactive detergent.**  
Uses advised against: **Different uses than those intended.**

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

Name: **CENTRO DISTRIBUZIONE UTENSILI S.p.a**  
Full address: **Via delle Gerole, 19**  
District and Country: **20867 CAPONAGO (MB)**  
**ITALY**  
tel. **+39 02 95746081**  
fax. **+ 39 02 95745182**

e-mail address of the competent person

responsible for the Safety Data Sheet: **info@cdu.net**  
Supplier: **CENTRO DISTRIBUZIONE UTENSILI S.p.a**

#### 1.4. Emergency telephone number

For urgent inquiries refer to: **CENTRO DISTRIBUZIONE UTENSILI S.p.a +39 02 95746081**  
**(Technical support - Office hour 8.30-13.00 - 14.00-17.30)**

### SECTION 2. Hazards identification

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

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

Hazard classification and indication:

Skin corrosion, category 1A	H314	Causes severe skin burns and eye damage.
Serious eye damage, category 1	H318	Causes serious eye damage.

#### 2.2. Label elements

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

Hazard pictograms:

Signal words: **DANGER**

Hazard statements:

**H314** Causes severe skin burns and eye damage.



## IDROVAP H110

## Precautionary statements:

<b>P260</b>	Do not breathe fume / gas / mist / vapours / spray.
<b>P305+P351+P338</b>	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>P303+P361+P353</b>	IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water [or shower].
<b>P280</b>	Wear protective gloves/ protective clothing / eye protection / face protection.
<b>P310</b>	Immediately call a POISON CENTER / doctor if you feel unwell.
<b>P264</b>	Wash the skin thoroughly after handling.

<b>Contains:</b>	POTASSIUM HYDROXIDE; DISODIUM METASILICATE PENTAHYDRATE.
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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  $\geq$  than 0,1%.  
The product does not contain substances with endocrine disrupting properties in concentration  $\geq$  0.1%.

## SECTION 3. Composition/information on ingredients

## 3.2. Mixtures

Contains:

Identification	X = Conc. %	Classification (EC) 1272/2008 (CLP)
<b>TETRAPOTASSIUM PYROPHOSPHATE</b>		
INDEX -	$3 \leq x \leq 5$	Eye Irrit. 2 H319
EC 230-785-7		
CAS 7320-34-5		
REACH Reg. 01-2119489369-18		
<b>DISODIUM METASILICATE PENTAHYDRATE</b>		
INDEX 014-010-00-8	$2 \leq x \leq 4$	Met. Corr. 1 H290, Skin Corr. 1B H314, Eye Dam. 1 H318, STOT SE 3 H335
EC 600-279-4		
CAS 6834-92-0		
REACH Reg. 01-2119449811-37		
<b>POTASSIUM HYDROXIDE</b>		
INDEX 019-002-00-8	$1,5 \leq x \leq 2,5$	Met. Corr. 1 H290, Acute Tox. 4 H302, Skin Corr. 1A H314, Eye Dam. 1 H318 Skin Corr. 1A; H314: $x \geq 5 \%$ , Skin Corr. 1B H314: $2 \% \leq x < 5 \%$ , Skin Irrit. 2 H315: $0,5 \% \leq x < 2 \%$ , Eye Irrit. 2 H319: $0,5 \% \leq x < 2 \%$ LD50 Oral: 333 mg/kg
EC 215-181-3		
CAS 1310-58-3		
REACH Reg. 01-2119487136-33		
<b>2-BUTOXYETHANOL</b>		
INDEX 603-014-00-0	$1,3 \leq x \leq 2,3$	Acute Tox. 3 H331, Acute Tox. 4 H302, Eye Irrit. 2 H319, Skin Irrit. 2 H315 LD50 Oral: 1200 mg/kg, LC50 Inhalation vapours: 3 mg/l/4h
EC 203-905-0		
CAS 111-76-2		
REACH Reg. 01-2119475108-36		
<b>POLY(OXY-1,2-ETHANEDIOL)-PHENYL-HYDROXY PHOSPHATE</b>		
INDEX -	$0,9 \leq x \leq 1,9$	Eye Dam. 1 H318
EC -		
CAS 39464-70-5		
REACH Reg. polymer		
<b>PHOSPHORIC ACID</b>		
INDEX 015-011-00-6	$0,05 \leq x \leq 0,1$	Met. Corr. 1 H290, Acute Tox. 4 H302, Skin Corr. 1B H314, Eye Dam. 1



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EC 231-633-2

CAS 7664-38-2

REACH Reg. 01-2119485924-24

H318, Classification note according to Annex VI to the CLP Regulation: B.

Skin Corr. 1B H314:  $x \geq 25\%$ , Skin Irrit. 2 H315:  $10\% \leq x < 25\%$ , Eye Irrit. 2H319:  $10\% \leq x < 25\%$ 

LD50 Oral: 1530 mg/kg

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

**SECTION 4. First aid measures****4.1. Description of first aid measures**

EYES: remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

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

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

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

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

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

**TETRAPOTASSIUM PYROPHOSPHATE**

Burning sensation. It can cause redness and watery eyes.

**DISODIUM METASILICATE PENTAHYDRATE**

Causes burns. Irritating to the respiratory tract. It can cause permanent eye damage.

**POTASSIUM HYDROXIDE**

Harmful if ingested. It causes serious skin burns and serious eye injuries.

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

Information for the doctor: symptomatically treatment.

**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**

Do not breathe combustion products.

**5.3. Advice for firefighters****GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS**

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

**6.2. Environmental precautions**

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

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

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

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

**6.4. Reference to other sections**

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

**SECTION 7. Handling and storage****7.1. Precautions for safe handling**

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

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

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

Storage class TRGS 510 (Germany): 8A

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

Hyperactive detergent.

**SECTION 8. Exposure controls/personal protection****8.1. Control parameters**

Regulatory references:

AUS Österreich  
BEL Belgique  
BGR България

CHE Suisse / Schweiz

CYP Κύπρος  
CZE Česká Republika

DEU Deutschland

DNK Danmark  
ESP España  
FRA France

FIN Suomi

GRC Ελλάδα

HUN Magyarország

HRV Hrvatska

ITA Italia  
IRL Éire

LUX Luxembourg

LTU Lietuva

LVA Latvija

MLT Malta

Gesamte Rechtsvorschrift für Grenzwerteverordnung 2021, Fassung vom 14.05.2023

Liste de valeurs limites d'exposition aux agents chimiques, livre VI du code du bien-être au travail

НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.5 от 17 Януари 2020г.)

Valeurs limites d'exposition aux postes de travail: VME/VLE (SUVA). Grenzwerte am Arbeitsplatz: MAK (SUVA)

Οι περί Ασφάλειας και Υγείας στην Εργασία Νόμοι του 1996 έως 2020 Κανονισμοί δυνάμει του άρθρου 38 NARÍZENÍ VLÁDY ze dne 10. května 2021, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci

Forschungsgemeinschaft MAK- und BAT-Werte-Liste 2022 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe Mitteilung 58

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

Límites de exposición profesional para agentes químicos en España 2023

Valeurs limites d'exposition professionnelle aux agents chimiques en France Décret n° 2021-1849 du 28 décembre 2021

HTP-VÄRDEN 2020. Koncentrationer som befunnits skadliga. SOCIAL - OCH

HÄLSOVÄRDSMINISTERIETS PUBLIKATIONER 2020:25

Π.Δ. 26/2020 (ΦΕΚ 50/Α' 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ ``σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιογόνους παράγοντες κατά την εργασία``»

Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről

Pravilnik o izmjenama i dopunama Pravilnika o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)

Decreto Legislativo 9 Aprile 2008, n.81

2020 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations (2001-2015) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001-2019)

Règlement grand-ducal du 24 janvier 2020 modifiant le règlement grand-ducal du 14 novembre 2016 concernant la protection des salariés contre les risques liés à l'exposition à des agents cancérigènes ou mutagènes au travail

Jsakymas dėl lietuvis higienos normos hn 23:2011 „cheminių medžiagų profesinio poveikio ribiniai dydžiai. Matavimo ir poveikio vertinimo bendrieji reikalavimai“ patvirtinimo

Grozījumi Ministru kabineta 2007. gada 15. maija noteikumos Nr. 325 "Darba aizsardzības prasības saskarē ar ķīmiskajām vielām darba vietās" (prot. Nr. 32 18. §; prot. Nr. 1 22. §)

PROTECTION OF THE HEALTH AND SAFETY OF WORKERS FROM THE RISKS RELATED TO CHEMICAL AGENTS AT WORK REGULATIONS (S.L.424.24). PROTECTION OF WORKERS FROM THE RISKS RELATED



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NOR	Norge	TO EXPOSURE TO CARCINOGENS OR MUTAGENS AT WORK REGULATIONS (S.L.424.22) Forskrift om endring i forskrift om tiltaksverdier og grenseverdier for fysiske og kjemiske faktorer i arbeidsmiljøet samt smitterisikogrupper for biologiske faktorer (forskrift om tiltaks- og grenseverdier), 21. august 2018 nr. 1255 Arbeidsomstandighedenregeling. Lijst van wettelijke grenswaarden op grond van de artikelen 4.3, eerste lid, en 4.16, eerste lid, van het Arbeidsomstandighedenbesluit Decreto-Lei n.º 1/2021 de 6 de janeiro, valores-limite de exposição profissional indicativos para os agentes químicos. Decreto-Lei n.º 35/2020 de 13 de julho, proteção dos trabalhadores contra os riscos ligados à exposição durante o trabalho a agentes cancerígenos ou mutagénicos Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy Hotărârea nr. 53/2021 pentru modificarea hotărârii guvernului nr. 1.218/2006, precum și pentru modificarea și completarea hotărârii guvernului nr. 1.093/2006 Hygieniska gränsvärden, Arbetsmiljöverkets föreskrifter och allmänna råd om hygieniska gränsvärden (AFS 2018:1) NARIADENIE VLÁDY Slovenskej republiky z 12. augusta 2020, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 356/2006 Z. z. o ochrane zdravia zamestnancov pred rizikami súvisiacimi s expozíciou karcinogénym a mutagénym faktorom pri práci v znení neskorších predpisov Pravilnik o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu (Uradni list RS, št. 100/01, 39/05, 53/07, 102/10, 43/11 – ZVZD-1, 38/15, 78/18 in 78/19) Kimyasal Maddelerle Çalışmalarda Sağlık ve Güvenlik Önlemleri Hakkında Yönetmelik 12.08.2013 / 28733 EH40/2005 Workplace exposure limits (Fourth Edition 2020) Direttiva (UE) 2022/431; Direttiva (UE) 2019/1831; Direttiva (UE) 2019/130; Direttiva (UE) 2019/983; Direttiva (UE) 2017/2398; Direttiva (UE) 2017/164; Direttiva 2009/161/UE; Direttiva 2006/15/CE; Direttiva 2004/37/CE; Direttiva 2000/39/CE; Direttiva 98/24/CE; Direttiva 91/322/CEE. ACGIH 2023
NLD	Nederland	
PRT	Portugal	
POL	Polska	
ROU	România	
SWE	Sverige	
SVK	Slovensko	
SVN	Slovenija	
TUR	Türkiye	
GBR	United Kingdom	
EU	OEL EU	
	TLV-ACGIH	

## PHOSPHORIC ACID

## Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	1		2		Häufigkeit pro Schicht:4x
VLEP	BEL	1		2		
TLV	BGR	1		2		
MAK	CHE	2		4		
VME/VLE	CHE	2		4		
TLV	CYP	1		2		
TLV	CZE	1	0,246	2	0,492	
AGW	DEU	2		4		INHAL
MAK	DEU	2		4		INHAL
TLV	DNK	1				E
VLA	ESP	1		2		
VLEP	FRA	1	0,2	2	0,5	
HTP	FIN	1		2		
TLV	GRC	1		3		
AK	HUN	1		2		
GVI/KGVI	HRV	1		2		
VLEP	ITA	1		2		
OELV	IRL	1		2		
VL	LUX	1		2		
RD	LTU	1		2		
RV	LVA	1		2		
TLV	MLT	1		2		
TLV	NOR	1				
TGG	NLD	1		2		



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VLE	PRT	1	2
NDS/NDSch	POL	1	2
TLV	ROU	1	2
NGV/KGV	SWE	1	2
NPEL	SVK	1	2
MV	SVN	1	2
ESD	TUR	1	2
WEL	GBR	1	2
OEL	EU	1	2
TLV-ACGIH		1	3

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

Effects on consumers

Effects on workers

Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation			0,73 mg/m3	VND	VND	2 mg/m3	2,92 mg/m3	VND

## POTASSIUM HYDROXIDE

**Threshold Limit Value**

Type	Country	TWA/8h	STEL/15min	Remarks / Observations
		mg/m3	ppm	
MAK	AUS	2		INHAL
VLEP	BEL		2	
TLV	BGR	2		
MAK	CHE	2		
VME/VLE	CHE	2		
TLV	CZE	1	2	
TLV	DNK	2	2 (C)	SKIN
VLA	ESP		2	
VLEP	FRA		2	
HTP	FIN		2 (C)	
AK	HUN	2	2	
GVI/KGVI	HRV		2	
OELV	IRL		2	
TLV	NOR		2 (C)	
NDS/NDSch	POL	0,5	1	
NGV/KGV	SWE	1	2	INHAL
WEL	GBR		2	
TLV-ACGIH			2 (C)	

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

Effects on consumers

Effects on workers

Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation			1 mg/m3				1 mg/m3	

## DISODIUM METASILICATE PENTAHYDRATE

Predicted no-effect concentration - PNEC



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Normal value in fresh water	7,5	mg/l
Normal value in marine water	1	mg/l
Normal value for water, intermittent release	7,5	mg/l
Normal value of STP microorganisms	1000	mg/l

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

Effects on consumers

Effects on workers

Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral			VND	0,74 mg/kg bw/d				
Inhalation			VND	1,55 mg/m3			VND	6,22 mg/m3
Skin			VND	0,74 mg/kg bw/d			VND	1,49 mg/kg bw/d

**2-BUTOXYETHANOL****Threshold Limit Value**

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
MAK	AUS	98	20	200	40	SKIN STEL:30', Häufigkeit/Sch:4x
TRK	AUS	98	20	200	40	
VLEP	BEL	98	20	246	50	SKIN
TLV	BGR	98	20	246	50	SKIN
MAK	CHE	49	10	98	20	SKIN
VME/VLE	CHE	49	10	98	20	SKIN
TLV	CYP	98	20	246	50	SKIN
TLV	CZE	100	20,4	200	40,8	SKIN
AGW	DEU	49	10	98	20	SKIN
MAK	DEU	49	10	98	20	SKIN Hinweis
TLV	DNK	98	20	246	50	SKIN E
VLA	ESP	98	20	245	50	SKIN
VLEP	FRA	49	10	246	50	SKIN
HTP	FIN	98	20	250	50	SKIN
TLV	GRC	120	25			
AK	HUN	98	20	246	50	SKIN
GVI/KGVI	HRV	98	20	246	50	SKIN
VLEP	ITA	98	20	246	50	SKIN
OELV	IRL	98	20	246	50	SKIN
VL	LUX	98	20	246	50	SKIN
RD	LTU	50	10	100	20	SKIN
RV	LVA	98	20	246	50	SKIN
TLV	MLT	98	20	246	50	SKIN
TLV	NOR	50	10			SKIN
TGG	NLD	100		246		SKIN
VLE	PRT	98	20	246	50	SKIN
NDS/NDSch	POL	98		200		SKIN
TLV	ROU	98	20	246	50	SKIN



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NGV/KGV	SWE	50	10	246	50	SKIN
NPEL	SVK	98	20	246	50	SKIN
MV	SVN	98	20	246	50	SKIN
ESD	TUR	98	20	246	50	SKIN
WEL	GBR	123	25	246	50	SKIN
OEL	EU	98	20	246	50	SKIN
TLV-ACGIH			20			

## Predicted no-effect concentration - PNEC

Normal value in fresh water	8,8	mg/l
Normal value in marine water	0,88	mg/l
Normal value for fresh water sediment	34,6	mg/kg/d
Normal value for marine water sediment	3,46	mg/kg/d
Normal value for water, intermittent release	26,4	mg/l
Normal value of STP microorganisms	463	mg/l
Normal value for the food chain (secondary poisoning)	0,02	g/kg
Normal value for the terrestrial compartment	2,33	mg/kg/d

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

Effects on consumers

Effects on workers

Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral		26,7 mg/kg/d		6,3 mg/kg bw/d				
Inhalation		426 mg/m3	147 mg/m3	59 mg/m3	246 mg/m3	1091 mg/m3		98 mg/m3

## TETRAPOTASSIUM PYROPHOSPHATE

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

Effects on consumers

Effects on workers

Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation				4,35 mg/m3				17,63 mg/m3

## Legend:

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

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

## 8.2. Exposure controls

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

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

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

Provide an emergency shower with face and eye wash station.

## HAND PROTECTION

Protect hands with category III work gloves.

The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, failure time and permeability.

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

## SKIN PROTECTION

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

## EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (see standard EN ISO 16321).

## RESPIRATORY PROTECTION

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. Use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).





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

#### ENVIRONMENTAL EXPOSURE CONTROLS

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

## SECTION 9. Physical and chemical properties

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

Properties	Value	Information
Appearance	clear liquid	
Colour	colourless	
Odour	characteristic	
Melting point / freezing point	not available	
Initial boiling point	>100°C	
Flammability	not applicable	
Lower explosive limit	not applicable	
Upper explosive limit	not applicable	
Flash point	not applicable	Note: water solution
Auto-ignition temperature	not available	
Decomposition temperature	not available	
pH	12 - 13	Concentration: 10 % Temperature: 20 °C
Kinematic viscosity	not available	
Solubility	in water: total	
Partition coefficient: n-octanol/water	not available	
Vapour pressure	not available	
Density and/or relative density	1,10 - 1,15 kg/dm <sup>3</sup>	Temperature: 20 °C
Relative vapour density	not available	
Particle characteristics	not applicable	

### 9.2. Other information

9.2.1. Information with regard to physical hazard classes  
Information not available.

#### 9.2.2. Other safety characteristics

VOC (Directive 2010/75/EU)	2,30 % - 23,77 g/litre
VOC (volatile carbon)	1,40 % - 14,48 g/litre
Explosive properties	not applicable

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

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

#### PHOSPHORIC ACID

Decomposes at temperatures above 200°C/392°F.

#### POTASSIUM HYDROXIDE

Reacts with: water, acids.

**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.

**PHOSPHORIC ACID**

Risk of explosion on contact with: nitromethane. May react dangerously with: alkalis, sodium borohydride.

**DISODIUM METASILICATE PENTAHYDRATE**

Develops hydrogen on contact with: aluminium, zinc, tin. May react violently with: acids. May react with: sugar residues to form carbon monoxide.

**TETRAPOTASSIUM PYROPHOSPHATE**

May react dangerously with: strong acids, oxidising agents.

**10.4. Conditions to avoid**

None in particular. However the usual precautions used for chemical products should be respected.

**POTASSIUM HYDROXIDE**

Unstable when exposed to air. Freezing.

**2-BUTOXYETHANOL**

Avoid exposure to: excessive heat (prolonged period).

**10.5. Incompatible materials****PHOSPHORIC ACID**

Incompatible with: metals, strong alkalis, aldehydes, organic sulphides, peroxides.

**POTASSIUM HYDROXIDE**

Incompatible materials: aluminium, zinc, tin, copper, copper alloys.

**2-BUTOXYETHANOL**

Avoid contact with: strong acids, strong oxidising agents.

**TETRAPOTASSIUM PYROPHOSPHATE**

Avoid contact with: strong acids.

**10.6. Hazardous decomposition products****PHOSPHORIC ACID**

May develop: phosphoryl oxides.

**POTASSIUM HYDROXIDE**

In decomposition develops: potassium oxides.

**2-BUTOXYETHANOL**

In decomposition develops: carbon oxides.

**SECTION 11. Toxicological information**

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

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

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**Metabolism, toxicokinetics, mechanism of action and other information

Information not available.

Information on likely routes of exposure

Information not available.

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

Information not available.

Interactive effects

Information not available.



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**ACUTE TOXICITY**

ATE (Inhalation - vapours) of the mixture: > 20 mg/l  
ATE (Oral) of the mixture: >2000 mg/kg  
ATE (Dermal) of the mixture: not classified (no significant component)

**PHOSPHORIC ACID**

LD50 (Dermal): 2740 mg/kg Rabbit  
LD50 (Oral): 1530 mg/kg Rat  
LC50 (Inhalation vapours): > 0,85 mg/l/1h Rat

**POTASSIUM HYDROXIDE**

LD50 (Oral): 333 mg/kg Male rat (OECD 425)

**DISODIUM METASILICATE PENTAHYDRATE**

LD50 (Dermal): > 5000 mg/kg Rat  
LD50 (Oral): 1152 mg/kg Rat  
LC50 (Inhalation mists/powders): > 2,06 g/m3 Rat

**2-BUTOXYETHANOL**

LD50 (Dermal): > 2000 mg/kg Rat  
LD50 (Oral): 1200 mg/kg Guinea pig  
LC50 (Inhalation vapours): 3 mg/l/4h Rat

**TETRAPOTASSIUM PYROPHOSPHATE**

LD50 (Dermal): > 2000 mg/kg Rabbit (OECD 402)  
LD50 (Oral): > 2000 mg/kg Rat  
LC50 (Inhalation mists/powders): > 1,1 mg/l Rat (OECD 403)

**POLY(OXY-1,2-ETHANEDIOL)-PHENYL-HYDROXY PHOSPHATE**

LD50 (Oral): > 2000 mg/kg Rat

**SKIN CORROSION / IRRITATION**

Corrosive for the skin. Classification according to the experimental pH value.

**SERIOUS EYE DAMAGE / IRRITATION**

Causes serious eye damage.

**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.

**REPRODUCTIVE TOXICITY**

Does not meet the classification criteria for this hazard class.

**STOT - SINGLE EXPOSURE**

Does not meet the classification criteria for this hazard class.

**STOT - REPEATED EXPOSURE**

Does not meet the classification criteria for this hazard class.

**ASPIRATION HAZARD**

Does not meet the classification criteria for this hazard class.

**11.2. Information on other hazards**

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

**SECTION 12. Ecological information**

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

**12.1. Toxicity****PHOSPHORIC ACID**

LC50 - for Fish	75,1 mg/l/96h <i>Oryzias latipes</i>
EC50 - for Crustacea	> 100 mg/l/48h <i>Daphnia magna</i>
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h <i>Desmodesmus subspicatus</i>

**POTASSIUM HYDROXIDE**

LC50 - for Fish	179 mg/l/96h pesce d'acqua dolce
EC50 - for Crustacea	60 mg/l/48h <i>Daphnia magna</i>

**DISODIUM METASILICATE PENTAHYDRATE**

LC50 - for Fish	210 mg/l/96h <i>Brachydanio rerio</i>
EC50 - for Crustacea	1700 mg/l/48h <i>Daphnia magna</i>
EC50 - for Algae / Aquatic Plants	207 mg/l/72h <i>Scenedesmus subspicatus</i>

**2-BUTOXYETHANOL**

LC50 - for Fish	1474 mg/l/96h <i>Onchorhynchus mykiss</i> (OECD 203)
EC50 - for Crustacea	1550 mg/l/48h <i>Daphnia magna</i> (OECD 202)
EC50 - for Algae / Aquatic Plants	911 mg/l/72h <i>Pseudokirchneriella subcapitata</i> (OECD 201)
Chronic NOEC for Fish	> 100 mg/l 21d - <i>Brachydanio rerio</i> (OECD 204)
Chronic NOEC for Crustacea	100 mg/l 21d - <i>Daphnia magna</i> (OECD 211)

**TETRAPOTASSIUM PYROPHOSPHATE**

LC50 - for Fish	> 100 mg/l/96h <i>Oncorhynchus mykiss</i> (OECD 203)
EC50 - for Crustacea	> 100 mg/l/48h <i>Daphnia magna</i> (OECD 202)
EC50 - for Algae / Aquatic Plants	> 100 mg/l/72h <i>Desmodesmus subspicatus</i> (OECD 201)

**POLY(OXY-1,2-ETHANEDIOL)-PHENYL-HYDROXY PHOSPHATE**

LC50 - for Fish	> 100 mg/l/96h <i>Oncorhynchus mykiss</i>
EC50 - for Algae / Aquatic Plants	> 1000 mg/l/72h <i>Pseudokirchneriella subcapitata</i>
Chronic NOEC for Fish	> 100 mg/l/96h <i>Oncorhynchus mykiss</i>
Chronic NOEC for Algae / Aquatic Plants	562,3 mg/l <i>Pseudokirchneriella subcapitata</i>

**12.2. Persistence and degradability****DISODIUM METASILICATE PENTAHYDRATE****PHOSPHORIC ACID**



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Solubility in water > 850000 mg/l

Degradability: information not available

## POTASSIUM HYDROXIDE

Solubility in water > 10000 mg/l

Degradability: information not available

## DISODIUM METASILICATE PENTAHYDRATE

Solubility in water Soluble

Soluble inorganic silicates rapidly depolymerize upon dissolution into molecular species indistinguishable from natural silicas dissolved. They combine with ions of Ca, Mg, Fe, Al and others to form insoluble compounds similar to the constituents of natural soils.

## 2-BUTOXYETHANOL

Solubility in water 1000 - 10000 mg/l

Rapidly degradable 90,4% - 28d (OECD 301B)

## TETRAPOTASSIUM PYROPHOSPHATE

Degradability: information not available

## POLY(OXY-1,2-ETHANEDIOL)-PHENYL-HYDROXY PHOSPHATE

Solubility in water Soluble

NOT rapidly degradable

**12.3. Bioaccumulative potential**

## 2-BUTOXYETHANOL

Partition coefficient: n-octanol/water 0,8 Log Kow

BCF < 100

**12.4. Mobility in soil**

Information not available.

**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  $\geq$  than 0,1%.

**12.6. Endocrine disrupting properties**

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

**12.7. Other adverse effects**

Information not available.

**SECTION 13. Disposal considerations****13.1. Waste treatment methods**

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**

**CENTRO DISTRIBUZIONE UTENSILI S.p.a****IDROVAP H110**

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EN

**14.1. UN number or ID number**

ADR / RID, IMDG, IATA: UN 1719

**14.2. UN proper shipping name**

ADR / RID: CAUSTIC ALKALI LIQUID, N.O.S. (DISODIUM METASILICATE PENTAHYDRATE; POTASSIUM HYDROXIDE)

IMDG: CAUSTIC ALKALI LIQUID, N.O.S. (DISODIUM METASILICATE PENTAHYDRATE; POTASSIUM HYDROXIDE)

IATA: CAUSTIC ALKALI LIQUID, N.O.S. (DISODIUM METASILICATE PENTAHYDRATE; POTASSIUM HYDROXIDE)

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

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8

**14.4. Packing group**

ADR / RID, IMDG, IATA: II

**14.5. Environmental hazards**

ADR / RID: NO

IMDG: NO

IATA: NO

**14.6. Special precautions for user**

ADR / RID:	HIN - Kemler: 80	Limited Quantities: 1 L	Tunnel restriction code: (E)
	Special provision: 274		
IMDG:	EMS: F-A, S-B	Limited Quantities: 1 L	
IATA:	Cargo:	Maximum quantity: 30 L	Packaging instructions: 855
	Passengers:	Maximum quantity: 1 L	Packaging instructions: 851
	Special provision:	A3, A803	

**14.7. Maritime transport in bulk according to IMO instruments**

Information not relevant.

**SECTION 15. Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Seveso Category - Directive 2012/18/EU: none.

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

Point 3

Contained substance

Point 75

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

Not applicable.

Substances in Candidate List (Art. 59 REACH)On the basis of available data, the product does not contain any SVHC in percentage  $\geq$  than 0,1%.Substances subject to authorisation (Annex XIV REACH)

None.

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

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

Regulation (EC) No. 648/2004Ingredients according to Regulation (EC) No. 648/2004

Less than 5%:	anionic surfactants.
5% or over but less than 15%:	phosphates.

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 1: low hazard to waters.

**15.2. Chemical safety assessment**

No chemical safety assessment has been performed for the mixture.

**SECTION 16. Other information**

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

<b>Met. Corr. 1</b>	Substance or mixture corrosive to metals, category 1
<b>Acute Tox. 3</b>	Acute toxicity, category 3
<b>Acute Tox. 4</b>	Acute toxicity, category 4
<b>Skin Corr. 1A</b>	Skin corrosion, category 1A
<b>Skin Corr. 1B</b>	Skin corrosion, category 1B
<b>Eye Dam. 1</b>	Serious eye damage, category 1
<b>Eye Irrit. 2</b>	Eye irritation, category 2
<b>Skin Irrit. 2</b>	Skin irritation, category 2
<b>STOT SE 3</b>	Specific target organ toxicity - single exposure, category 3
<b>H290</b>	May be corrosive to metals.
<b>H331</b>	Toxic if inhaled.



H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.

## LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent, bioaccumulative and toxic
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- WGK: Water hazard classes (German).

Classification and procedure used to derive it in accordance with Regulation (EC) 1272/2008 (CLP) in relation to mixtures:

Classification according to Regulation (EC) No. 1272/2008	Classification procedure
Skin Corr. 1A H314	Calculation method and experimental data
Eye Dam. 1 H318	Calculation method

## GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)





- 16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
- 17. Regulation (EU) 2019/1148
- 18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
- 19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
- 20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
- 21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
- 22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
- 23. Delegated Regulation (UE) 2023/707

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

**Note for users:**

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

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

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

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

**CALCULATION METHODS FOR CLASSIFICATION**

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

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

**Changes to previous review:**

The following sections were modified:

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