

Safety Data Sheet

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

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

1.1. Product identifier

Code: 135
Product name: FORT HD SPRAY
UFI : NQ60-E08T-U00S-8RGA

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

Intended use: Alkaline degreaser for plates and ovens

Identified Uses	Industrial	Professional	Consumer
Products for washing and cleaning	PROC: 10, 13, 19, 7, 8a, 8b. PC: 35.	PROC: 10, 11, 13, 19, 8a, 8b. PC: 35.	-

Uses Advised Against

None known

Usi di consumo: nuclei familiari (=popolazione in generale = consumatori)

1.3. Details of the supplier of the safety data sheet

Name: FIRMA SRL
Full address: VIA PER MODENA, 28
District and Country: 42015 CORREGGIO (RE) IT
Tel. 0522 691880
Fax 0522 631277

e-mail address of the competent person responsible for the Safety Data Sheet

SDS@FIRMACHIMICA.IT

Supplier: FIRMA SRL

1.4. Emergency telephone number

For urgent inquiries refer to
Tel. 0039 0522 691880 Office hours: 08.30 - 12.30, 14.00 - 18.00
Tel. 0039 0522 036527 other times – laboratorio@firmachimica.it

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.
Hazardous to the aquatic environment, chronic toxicity, category 3	H412	Harmful 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.

Hazard pictograms:



SECTION 2. Hazards identification ... / >>

Signal words: Danger

Hazard statements:

H314 Causes severe skin burns and eye damage.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P264 Wash [. . .] thoroughly after handling.
P280 Wear protective gloves / protective clothing / eye protection / face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER / doctor in case of eye contact.

Contains: SODIUM HYDROXIDE
mono e di-alchil disulfonato difenilossido, sale sodico

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

Less than 5%	non-ionic surfactants
5% or over but less than 15%	anionic surfactants
dye	
perfumes, Citral, Limonene	

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)
mono e di-alchil disulfonato difenilossido, sale sodico		
CAS	$5 \leq x < 8$	Acute Tox. 4 H302, Eye Dam. 1 H318, Aquatic Chronic 2 H411 LD50 Oral: >1500 mg/kg
EC	915-640-4	
INDEX		
REACH Reg.	01-2120761034-63-xxxx	
SODIUM HYDROXIDE		
CAS	$2 \leq x < 5$	Met. Corr. 1 H290, Skin Corr. 1A H314, Eye Dam. 1 H318 Skin Corr. 1B H314: \geq 2%, Skin Corr. 1C H314: \geq 0,5%, Skin Irrit. 2 H315: \geq 0,1%, Eye Dam. 1 H318: \geq 2%, Eye Irrit. 2 H319: \geq 0,1%
EC	215-185-5	
INDEX	011-002-00-6	
REACH Reg.	01-2119457892-27-xxxx	

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

SECTION 4. First aid measures

In case of doubt or the presence of a symptom, consult a doctor.

4.1. Description of first aid measures

EYES: Remove any contact lenses. Wash immediately with plenty of water for at least 30/60 minutes, opening the eyelids well. Consult a doctor.

SKIN: Remove contaminated clothing immediately. Take a shower immediately. Consult a doctor immediately.

INGESTION: DO NOT induce vomiting. Consult a doctor immediately. Never give anything by mouth to an unconscious person or with cramps.

INHALATION: Call a doctor immediately. Bring the subject to fresh air, away from the accident site. If breathing stops, give artificial

SECTION 4. First aid measures ... / >>

respiration. Take appropriate precautions for the rescuer.

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

It causes serious skin burns and serious eye injuries.

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

Information not available.

SECTION 5. Firefighting measures**5.1. Extinguishing media**

SUITABLE EXTINGUISHING MEDIA: The extinguishing media are the traditional ones: carbon dioxide, foam and chemical powder. For leaks and spills of the product that have not ignited, the nebulized water can be used to disperse the flammable vapors and to protect the people involved in stopping the loss. NON-SUITABLE EXTINGUISHING MEDIA: Do not use water jets. Water is not effective for extinguishing the fire but it can be used to cool closed containers exposed to the flame, preventing bursts and explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS DUE TO EXPOSURE IN THE EVENT OF FIRE: Avoid breathing combustion products: carbon oxides.

5.3. Advice for firefighters

GENERAL INFORMATION: Cool the containers with water jets to avoid decomposition of the product and the development of substances potentially hazardous for health. Wear, if necessary, complete fire protection equipment. Collect extinguishing water that must not be discharged into drains. Dispose of the contaminated water used for the fire extinguisher and the residue according to the regulations in force. EQUIPMENT: Not necessary for small fires. If necessary, wear fire-fighting clothing such as a fireproof suit (EN469), fireproof gloves (EN659) and boots for firefighters (HO A29 or A30) depending on the amount of product and any other materials involved in the fire.

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

Stop the leak if there is no danger. Wear appropriate protective equipment (including personal protective equipment referred to in section 8 of the safety data sheet) to prevent contamination of the skin, eyes and personal clothing. These indications are valid both for workers involved in the work and for emergency interventions.

6.2. Environmental precautions

Prevent the product from entering sewers, surface waters, water tables.

6.3. Methods and material for containment and cleaning up

Vacuum the leaked product into a suitable container. Evaluate the compatibility of the container to be used with the product, checking section 10. Absorb the remainder with inert absorbent material. Ensure adequate ventilation of the area affected by the loss. Disposal of the contaminated material must be carried out in accordance with the provisions of point 13.

6.4. Reference to other sections

Any information regarding 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.

7.3. Specific end use(s)

See the exposure scenarios attached to this safety datasheet.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

TLV-ACGIH ACGIH 2021

mono e di-alchil disulfonato difenilossido, sale sodico

Predicted no-effect concentration - PNEC

Normal value in fresh water	0,013	mg/l
Normal value in marine water	0,001	mg/l
Normal value for fresh water sediment	0,216	mg/kg
Normal value for marine water sediment	0,022	mg/kg
Normal value for the terrestrial compartment	0,035	mg/kg

Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute	Acute	Chronic	Chronic	Acute	Acute	Chronic	Chronic
	local	systemic	local	systemic	local	systemic	local	systemic
Oral				9,14 mg/kg/d				
Inhalation				16 mg/m3				64 mg/m3
Skin				9,14 mg/kg/d				18,2 mg/kg/d

SODIUM HYDROXIDE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations		
		mg/m3	ppm	mg/m3	ppm			
TLV-ACGIH		2						

Health - Derived no-effect level - DNEL / DMEL

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

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.
 VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

Comply with the safety measures usually applied when handling chemical substances.

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.

When choosing risk management measures and operating conditions, consult the exposure scenarios attached.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

In the case of prolonged contact with the product, protect the hands with penetration-resistant work gloves (see standard EN 374).

Work glove material must be chosen according to the use process and the products that may form. Latex gloves may cause sensitivity reactions.

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 166).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

Respiratory protection is not normally required. In any case, avoid inhalation of vapors, aerosols and gases. Use self-contained breathing apparatus or masks with filter type "A" during emergency operations. EN 141 gas / vapor filters. A respirator is not required under normal conditions of use and under the conditions for using the product. In case of insufficient ventilation and / or in the case of short or minimal exposure use the mask, wear an appropriate respirator (with filter type "A").

SECTION 8. Exposure controls/personal protection ... / >>

ENVIRONMENTAL EXPOSURE CONTROLS

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

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

For information on controlling environmental exposure, see the exposure scenarios attached to this safety datasheet.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	dark brown	
Odour	characteristic of solvent	
Melting point / freezing point	< 0 °C	
Initial boiling point	> 100 °C	
Flammability	not flammable	
Lower explosive limit	0,8 % (v/v)	Substance:Tripropilenglicol metil etere
Upper explosive limit	8,5 % (v/v)	Substance:Tripropilenglicol metil etere
Flash point	> 61 °C	
Auto-ignition temperature	Not available	
Decomposition temperature	> 220 °C	Substance: mono e di-alchil disulfonato difenilossido, sale sodico
pH	13,5	Temperature: 20 °C
Kinematic viscosity	20-50 cSt	Temperature: 20 °C
Dynamic viscosity	20-50 cP	Temperature: 20 °C
Solubility	completamente solubile in acqua	
Partition coefficient: n-octanol/water	> 0	Method:log Kow Remark:valutazione di dati bibliografici
Vapour pressure	1,7 Pa	Temperature: 20 °C Substance:Tripropilenglicol metil etere
Density and/or relative density	1,075 g/cm3	Temperature: 20 °C
Relative vapour density	7.15	Remark:aria = 1 Substance:Tripropilenglicol metil etere
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

Total solids (250°C / 482°F)	28,00 %	Temperature: 105 °C
VOC (Directive 2010/75/EU)	0,16 % - 1,70 g/litre	
VOC (volatile carbon)	0,13 % - 1,45 g/litre	
Explosive properties	not explosive	
Oxidising properties	non ossidante	

SECTION 10. Stability and reactivity

In the absence of data relating to the preparation, the following information refers to the substances that make up the mixture.

10.1. Reactivity

Depending on the nature of the components, it is not considered that the product can react violently with other substances miscible with water. In any case, keep away from strongly reducing or oxidising compounds.

SODIUM HYDROXIDE

May corrode: metals.

Il contatto con acidi forti può provocare reazioni violente ed esplosioni. Potenziale pericolo per reazioni esotermiche. Potere corrosivo nei confronti dei metalli.

10.2. Chemical stability

SECTION 10. Stability and reactivity ... / >>

The product is stable in storage conditions and recommended use (see paragraph 7).

SODIUM HYDROXIDE

Stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

Under normal conditions of use and storage, no dangerous reactions are foreseeable.

SODIUM HYDROXIDE

Develops hydrogen on contact with: metals.

Develops heat on contact with: strong acids.

May react violently with: water.

Il contatto con acidi forti può provocare reazioni violente ed esplosioni. Potenziale pericolo per reazioni esotermiche. Potere corrosivo nei confronti dei metalli.

10.4. Conditions to avoid

None in particular. However, follow the usual precautions against chemical products.

SODIUM HYDROXIDE

Avoid exposure to: light.

Decomposes if exposed to: high temperatures.

Avoid exposure to: moisture.

SODIUM HYDROXIDE: exposure to the air, moisture and sources of heat.

10.5. Incompatible materials

Do not mix with strong oxidizing substances and with acid products.

mono e di-alchil disulfonato difenilossido, sale sodico

Avoid contact with: strong acids.

SODIUM HYDROXIDE

Avoid contact with: metals, oxidising agents, water, aluminium, acids.

SODIUM HYDROXIDE: strong acids, ammonia, zinc, lead, aluminium, water and flammable liquids.

10.6. Hazardous decomposition products

Information not available.

SODIUM HYDROXIDE

May develop: hydrogen.

Ossidi di sodio.

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

ACUTE TOXICITY

SECTION 11. Toxicological information ... / >>

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	>2000 mg/kg
ATE (Dermal) of the mixture:	Not classified (no significant component)

mono e di-alchil disulfonato difenilossido, sale sodico

LD50 (Oral):	> 1500 mg/kg ratto
LD50 (Dermal):	> 2000 mg/kg coniglio

SODIUM HYDROXIDE

LD50 (Oral):	325 mg/kg
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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

Contiene: limonene,citral, possono provocare una reazione allergica.

Respiratory sensitization

Information not available

Skin sensitization

Information not available

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

Adverse effects on sexual function and fertility

Information not available

Adverse effects on development of the offspring

Information not available

Effects on or via lactation

Information not available

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

SECTION 11. Toxicological information ... / >>

Information not available

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

Target organs

Information not available

Route of exposure

Information not available

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

11.2. Information on other hazards

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

SECTION 12. Ecological information

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

12.1. Toxicity

mono e di-alchil disulfonato difenilossido, sale sodico

LC50 - for Fish 3,6 mg/l/96h carassius

EC50 - for Crustacea 1,5 mg/l/48h daphnia

EC50 - for Algae / Aquatic Plants 840 mg/l/96h

Chronic NOEC for Crustacea 0,65 mg/l

SODIUM HYDROXIDE

LC50 - for Fish 189 mg/l/96h

EC50 - for Crustacea 40,4 mg/l/48h Ceriodaphnia dubia

12.2. Persistence and degradability

mono e di-alchil disulfonato difenilossido, sale sodico

NOT rapidly degradable

SODIUM HYDROXIDE

Solubility in water 100 g/100g H2O

Degradability: information not available

12.3. Bioaccumulative potential

Information not available

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.

SECTION 12. Ecological information ... / >>

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

14.1. UN number or ID number

ADR / RID, IMDG, IATA: 3267

14.2. UN proper shipping name

ADR / RID: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.

IMDG: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.

IATA: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.

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: III

14.5. Environmental hazards

ADR / RID: NO

IMDG: NO

IATA: NO

14.6. Special precautions for user

ADR / RID: HIN - Kemler: 80

Special provision: -

Limited Quantities: 5 L

Tunnel restriction code: (E)

IMDG: EMS: F-A, S-B

Limited Quantities: 5 L

IATA: Cargo:

Maximum quantity: 60 L

Packaging instructions: 856

Pass.:

Maximum quantity: 5 L

Packaging instructions: 852

Special provision:

A3, A803

14.7. Maritime transport in bulk according to IMO instruments

Information not relevant

SECTION 15. Regulatory information

CODICE ISS (Azienda / preparato): 00466200359 / 135

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixtureSeveso Category - Directive 2012/18/EU: None

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

Product	
Point	3 - 40
Contained substance	
Point	75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors
Not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage \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. 648/2004

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

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

15.2. Chemical safety assessmentA chemical safety assessment has been performed for the following contained substances
SODIUM HYDROXIDE**SECTION 16. Other information**

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

Met. Corr. 1	Substance or mixture corrosive to metals, category 1
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1A	Skin corrosion, category 1A
Eye Dam. 1	Serious eye damage, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Use descriptor system:

PC	35	Washing and cleaning products
PROC	10	Roller application or brushing

SECTION 16. Other information ... / >>

PROC 11	Non industrial spraying
PROC 13	Treatment of articles by dipping and pouring
PROC 19	Manual activities involving hand contact
PROC 7	Industrial spraying
PROC 8a	Transfer of substance or mixture (charging and discharging) at non- dedicated facilities
PROC 8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities

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 as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
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)

- 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

SECTION 16. Other information ... / >>

- 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 / 09.