

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

Product name

FOT

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

Intended use

Fuel Oil Treatment Sludge Conditioner - Pre-Combustion Additive

1.3. Details of the supplier of the safety data sheet

Name

UNIservice UNISAFE Srl

Full address

Via al Santuario di N.S. Guardia 58 a

District and Country

16162 Genova Bolzaneto (GE)

Italia

Tel. + 39 010 711395

Fax + 39 010 713120

e-mail address of the competent person

responsible for the Safety Data Sheet

info@uniservicemarine.com

1.4. Emergency telephone number

For urgent inquiries refer to

First Aid Information: Osp. " Pediatrico Bambino Gesù" - Dip. Emergenza e Accettazione DEA - 00165 - Roma - Piazza Sant' Onofrio, 4 - PIC: Mr.: Marco Marano - Phone :06 68593726.

First Aid Information: Az. Osp. Univ. Foggia- Azienda Ospedaliera Universitaria riuniti, Foggia - V.le Luigi Pinto, 1- 71122 - PIC: Mrs.: Anna Lepre- phone.: 800183459.

First Aid Information:Az. Osp. "A. Cardarelli" -Servizio di Anestesia e rianimazione- Napoli, Via A. Cardarelli, 9- 80131- Phone: 081-5453333. PIC: Mr.: Romolo Villani.

First Aid Information: Policlinico "Umberto I" -PRGM tossicologia d'urgenza, Roma - V.le del Policlinico, 155, cap 161- phone. 06-49978000- PIC: Mrs.: M. Caterina Grassi.

First Aid Information: Policlinico "A. Gemelli", Servizio di tossicologia clinica, Roma, Largo Agostino Gemelli, 8- CAP: 168- phone: 06-3054343 - PIC: Mr.: Alessandro Barelli.

First Aid Information: Az. Osp. "Careggi" U.O. Tossicologia Medica- Firenze, via Largo Brambilla, 3- CAP: 50134 -Phone: 055-7947819 -PIC: Mr.: Francesco Gambassi.

First Aid Information: Centro Nazionale di Informazione Tossicologica-IRCCS Fondazione Salvatore Maugeri Clinica del lavoro e della riabilitazione - Pavia, Via Salvatore Maugeri, 10- CAP: 27100- Phone : 0382-24444 - PIC: Mr.: Carlo Locatelli.

First Aid Information: Osp. Niguarda Ca' Granda - Milano, Piazza Ospedale Maggiore,3- CAP :20162- Phone: 02-66101029- PIC: Mrs.: Franca Davanzo.

First Aid Information: Azienda Ospedaliera Papa Giovanni XXII - Bergamo- Piazza OMS, 1 - CAP: 24127 -Phone: 800883300- PIC: Mr.: Bacis Giuseppe.

First Aid Information:Azienda Ospedaliera Integrata Verona, CAP: 37126 - Piazzale Aristide Stefani, 1,CAP: 37126- Phone: 800011858- PIC: Mr.: Giorgio Ricci.

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:

Carcinogenicity, category 2	H351	Suspected of causing cancer.
Reproductive toxicity, category 2	H361d	Suspected of damaging the unborn child.
Aspiration hazard, category 1	H304	May be fatal if swallowed and enters airways.
Serious eye damage, category 1	H318	Causes serious eye damage.
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.

Hazard pictograms:

Signal words: Danger

Hazard statements:

H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Precautionary statements:

P331	Do NOT induce vomiting.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P280	Wear protective gloves/ protective clothing / eye protection / face protection.
P310	Immediately call a POISON CENTER or a doctor.
P273	Avoid release to the environment.

P391

Collect spillage.

Contains:

AROMATIC HYDROCARBON C 10

Acid 2-ethiylesanoic , Manganese Salt

ALCOHOLS, C11-13-RAMIFIED, ETHOXILATED (7-15 EO)

NAPHTHA (PETROL.) HYDROTREATED HEAVY

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)
AROMATIC HYDROCARBON C 10		
INDEX -	$75 \leq x < 100$	Carc. 2 H351, Asp. Tox. 1 H304, STOT SE 3 H336, Aquatic Chronic 2 H411, EUH066
EC 919-284-0		
CAS 64742-94-5		
REACH Reg. 01-2119463588-24		
ALCOHOLS, C11-13-RAMIFIED, ETHOXILATED (7-15 EO)		
INDEX	$5 \leq x < 15$	Acute Tox. 4 H302, Eye Dam. 1 H318
EC -		LD50 Oral: 300 mg/kg
CAS 68439-54-3		
Acid 2-ethiylesanoic , Manganese Salt		
INDEX -	$5 \leq x < 10$	Repr. 2 H361d, STOT RE 2 H373, Eye Irrit. 2 H319, Aquatic Chronic 2 H411
EC 240-085-3		
CAS 15956-58-8		
REACH Reg. 01-2119979087-23		
NAPHTHA (PETROL.) HYDROTREATED HEAVY		
INDEX 649-327-00-6	$1 \leq x < 5$	Asp. Tox. 1 H304, Classification note according to Annex VI to the CLP Regulation: P
EC 265-150-3		
CAS 64742-48-9		

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

UNIservice UNISAFE Srl	Revision nr. 5
FOT	Dated 28/05/2024 Printed on 28/05/2024 Page n. 4/14 Replaced revision:4 (Dated: 06/11/2023)
In case of doubt or in the presence of symptoms contact a doctor and show him this document. In case of more severe symptoms, ask for immediate medical aid. EYES: Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention. SKIN: Take off contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice. Avoid further contact with contaminated clothing. INGESTION: Do not induce vomiting unless explicitly authorised by a doctor. Do not give anything by mouth to an unconscious person. Get medical advice/attention. INHALATION: Remove victim to fresh air, away from the accident scene. In the event of respiratory symptoms (coughing, wheezing, breathing difficulty, asthma) keep the victim in a comfortable position for breathing. If necessary administer oxygen. If the subject stops breathing, administer artificial respiration. Get medical advice/attention. <u>Rescuer protection</u> It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8. 4.2. Most important symptoms and effects, both acute and delayed Specific information on symptoms and effects caused by the product are unknown. DELAYED EFFECTS: Based on the information currently available, there are no known cases of delayed effects following exposure to this product. 4.3. Indication of any immediate medical attention and special treatment needed Immediately call a POISON CENTER or a doctor. <u>Means to have available in the workplace for specific and immediate treatment</u> Running water for skin and eye wash. 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

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Information not available

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, permeability time.

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 I 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 airtight protective 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.

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

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	
Colour	brown	
Odour	aromatic solvent	
Melting point / freezing point	< -20 °C	
Initial boiling point	not available	
Flammability	not available	
Lower explosive limit	0,6 % (v/v)	
Upper explosive limit	8 % (v/v)	
Flash point	> 70 °C	
Auto-ignition temperature	450 °C	
Decomposition temperature	not available	
pH	not available	
Kinematic viscosity	not available	
Dynamic viscosity	10 mPa.s	
Solubility	miscible	

UNIservice UNISAFE Srl	Revision nr. 5
	Dated 28/05/2024
FOT	Printed on 28/05/2024
	Page n. 7/14
	Replaced revision:4 (Dated: 06/11/2023)

Partition coefficient: n-octanol/water	not available
Vapour pressure	0,04 kPa
Density and/or relative density	0,96 kg/l
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

Information not available

SECTION 10. Stability and reactivity

10.1. Reactivity

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

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.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

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.

UNIservice UNISAFE Srl		Revision nr. 5
FOT		Dated 28/05/2024
		Printed on 28/05/2024
		Page n. 8/14
		Replaced revision:4 (Dated: 06/11/2023)
<u>Metabolism, toxicokinetics, mechanism of action and other information</u>		
Information not available		
<u>Information on likely routes of exposure</u>		
Information not available		
<u>Delayed and immediate effects as well as chronic effects from short and long-term exposure</u>		
Information not available		
<u>Interactive effects</u>		
Information not available		
<u>ACUTE TOXICITY</u> 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)
AROMATIC HYDROCARBON C 10		
LD50 (Dermal):		> 2000 mg/kg
LD50 (Oral):		> 5000 mg/kg
LC50 (Inhalation vapours):		> 4688 mg/l/4h <5
ALCOHOLS, C11-13-RAMIFIED, ETHOXILATED (7-15 EO)		
LD50 (Dermal):		> 2000 mg/kg rabbit
LD50 (Oral):		300 mg/kg rat
NAPHTHA (PETROL.) HYDROTREATED HEAVY		
LD50 (Dermal):		> 2000 mg/kg Rabbit
LD50 (Oral):		> 5000 mg/kg Rat
<u>SKIN CORROSION / IRRITATION</u>		
Repeated exposure may cause skin dryness or cracking.		
<u>SERIOUS EYE DAMAGE / IRRITATION</u>		
Causes serious eye damage		
<u>RESPIRATORY OR SKIN SENSITISATION</u>		
Does not meet the classification criteria for this hazard class		
<u>GERM CELL MUTAGENICITY</u>		
Does not meet the classification criteria for this hazard class		
<u>CARCINOGENICITY</u>		
Suspected of causing cancer		
<u>REPRODUCTIVE TOXICITY</u>		
Suspected of damaging the unborn child		

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Toxic for aspiration

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 is toxic for aquatic organisms. In the long term, it has negative effects on the aquatic environment.

12.1. Toxicity

ALCOHOLS, C11-13-RAMIFIED, ETHOXILATED (7-15 EO)	
LC50 - for Fish	> 1 mg/l/96h cyprinus carpio (carp)
EC50 - for Crustacea	> 1 mg/l/48h Daphnia magna -dose efficace 1-10 mg/l
EC50 - for Algae / Aquatic Plants	> 1 mg/l/72h Desmodismus subspicatus-dose efficace 1-10 mg/l
AROMATIC HYDROCARBON C 10	
LC50 - for Fish	> 2 mg/l/96h
NAPHTHA (PETROL.) HYDROTREATED HEAVY	
LC50 - for Fish	8,2 mg/l/96h Pimephales promelas
EC50 - for Crustacea	4,5 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	3,1 mg/l/72h Pseudokirchnerella subcapitata

12.2. Persistence and degradability

ALCOHOLS, C11-13-RAMIFIED, ETHOXILATED (7-15 EO)	
Rapidly degradable	
NAPHTHA (PETROL.) HYDROTREATED HEAVY	
Rapidly degradable	

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.

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: UN 3082

ADR / RID: In accordance with Special Provision 375, this product, when is packed in receptacles of a capacity $\leq$ 5Kg or 5L, is not submitted to ADR provisions.

IMDG: In accordance with Section 2.10.2.7 of IMDG Code, this product, when is packed in receptacles of a capacity $\leq$ 5Kg or 5L, is not submitted to IMDG Code provisions.

IATA: In accordance with SP A197, this product, when is packed in receptacles of a capacity $\leq$ 5Kg or 5L, is not submitted to IATA dangerous goods regulations.

14.2. UN proper shipping name

ADR / RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AROMATIC HYDROCARBON C 10; Acid 2-ethiylesanoic , Manganese Salt)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AROMATIC HYDROCARBON C 10; Acid 2-ethiylesanoic , Manganese Salt)

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (AROMATIC HYDROCARBON C 10; Acid 2-ethiylesanoic , Manganese Salt)

14.3. Transport hazard class(es)

ADR / RID: Class: 9 Label: 9

IMDG: Class: 9 Label: 9



UNIservice UNISAFE Srl			Revision nr. 5	
FOT			Dated 28/05/2024	
			Printed on 28/05/2024	
			Page n. 11/14	
			Replaced revision:4 (Dated: 06/11/2023)	
IATA: Class: 9 Label: 9				
				
14.4. Packing group				
ADR / RID, IMDG, IATA: III				
14.5. Environmental hazards				
ADR / RID:		Environmentally Hazardous		
IMDG:		Marine Pollutant		
IATA:		Environmentally Hazardous		
14.6. Special precautions for user				
ADR / RID:		HIN - Kemler: 90	Limited Quantities: 5 It	Tunnel restriction code: (-)
		Special provision: 274, 335, 375, 601		
IMDG:		EMS: F-A, S-F	Limited Quantities: 5 It	
IATA:		Cargo:	Maximum quantity: 450 L	Packaging instructions: 964
		Passengers:	Maximum quantity: 450 L	Packaging instructions: 964
		Special provision:	A97, A158, A197, A215	
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: E2				
Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006				
Product Point 3				
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.

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. Other information

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

Carc. 2	Carcinogenicity, category 2
Repr. 2	Reproductive toxicity, category 2
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
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H302	Harmful if swallowed.
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.

UNIservice UNISAFE Srl		Revision nr. 5
		Dated 28/05/2024
FOT		Printed on 28/05/2024
		Page n. 13/14
		Replaced revision:4 (Dated: 06/11/2023)
H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. 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 - 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).		
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		

UNIservice UNISAFE Srl	Revision nr. 5
	Dated 28/05/2024
FOT	Printed on 28/05/2024
	Page n. 14/14
	Replaced revision:4 (Dated: 06/11/2023)

- 24. Delegated Regulation (UE) 2023/1434 (XIX Atp. CLP)
- 24. Delegated Regulation (UE) 2023/1435 (XX 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
- 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 / 04 / 12 / 14.