Safety Data Sheet

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

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

1.1. Product identifier

Code: **455158**
Product name **MULTIQUARTZ**

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

Identified Uses	Industrial	Professional	Consumer
Paint / Coating	-	PC: 9a.	PC: 9a.

Uses Advised Against

All uses other than painting in construction.

1.3. Details of the supplier of the safety data sheet

Name **CROMOLOGY ITALIA S.P.A.**
Full address **Via IV Novembre, 4**
District and Country **55016 Porcari (LU)**
Italia

Tel. 199.11.99.55

Fax 199.11.99.77

e-mail address of the competent person
responsible for the Safety Data Sheet **info-sds@cromology.it**

1.4. Emergency telephone number

For urgent inquiries refer to **Contact your local poison control centre.**
For more information: Cromology Italia SpA Phone +39 05832424
from Monday to Friday 9:30-12:30 14:00-17:30

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).
However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information, compliant to (EU) Regulation 2020/878.

Hazard classification and indication: --

2.2. Label elements

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

Hazard pictograms: --

Signal words: --

Hazard statements:

EUH210 Safety data sheet available on request.

EUH211 Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

EUH208 Contains: 2-METHYL-2H-ISOTHIAZOL-3-ONE (MIT), Reaction mass of 5-chloro-2-methyl-1,2-thiazol-3(2H)-one and 2-methyl-1,2-thiazol-3(2H)-one (3: 1) (C(M)IT/MIT), 1,2-BENZOISOTIAZOL-3(2H)-ONE (BIT)
May produce an allergic reaction.

Precautionary statements: --

VOC (Directive 2004/42/EC) :

Interior matt walls and ceilings (Gloss < 25@60°).

VOC given in g/litre of product in a ready-to-use condition :	30,00
Limit value:	30,00

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage ≥ than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration ≥ 0.1%.

SECTION 3. Composition/information on ingredients

3.2. Mixtures

Contains:

Identification	x = Conc. %	Classification (EC) 1272/2008 (CLP)
1,2-BENZOISOTIAZOL-3(2H)-ONE (BIT)		
INDEX 613-088-00-6	0 < x < 0,036	Acute Tox. 2 H330, Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1
EC 220-120-9		Skin Sens. 1A H317: ≥ 0,036%
CAS 2634-33-5		LD50 Oral: 450 mg/kg, LC50 Inhalation mists/powders: 0,21 mg/l/4h
REACH Reg. 01-2120761540-60		
Reaction mass of 5-chloro-2-methyl-1,2-thiazol-3(2H)-one and 2-methyl-1,2-thiazol-3(2H)-one (3: 1) (C(M)IT/MIT)		
INDEX 613-167-00-5	0 < x < 0,0015	Acute Tox. 2 H310, Acute Tox. 2 H330, Acute Tox. 3 H301, Skin Corr. 1C H314, Eye Dam. 1 H318, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=100, Aquatic Chronic 1 H410 M=100, EUH071, Classification note according to Annex VI to the CLP Regulation: B
EC 611-341-5		Skin Corr. 1C H314: ≥ 0,6%, Skin Irrit. 2 H315: ≥ 0,06% - < 0,6%, Skin Sens. 1A H317: ≥ 0,0015%, Eye Dam. 1 H318: ≥ 0,6%, Eye Irrit. 2 H319: ≥ 0,06% -

		< 0,6%
CAS 55965-84-9		LD50 Oral: 66 mg/kg, LD50 Dermal: >141 mg/kg, LC50 Inhalation mists/powders: 0,17 mg/l/4h
2-METHYL-2H-ISOTHIAZOL-3-ONE (MIT)		
INDEX 613-326-00-9	0 < x < 0,0015	Acute Tox. 2 H330, Acute Tox. 3 H301, Acute Tox. 3 H311, Skin Corr. 1B H314, Eye Dam. 1 H318, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1
EC 220-239-6		Skin Sens. 1A H317: ≥ 0,0015%
CAS 2682-20-4		LD50 Oral: 120 mg/kg, LD50 Dermal: 300 mg/kg, LC50 Inhalation mists/powders: 0,34 mg/l/4h

The full wording of hazard (H) phrases is given in section 16 of the sheet.
Contains Titanium Dioxide, CAS n. 13463-67-7 (containing <1% of particles with aerodynamic diameter ≤ 10 µm, therefore NOT classified Carc. 2, H351). However, for precautionary reasons, the product has been classified EUH211: Warning! In case of vaporization, dangerous respirable droplets may be formed. Do not breathe vapors or mists.

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 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

Rescuer protection

Information not available

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

Information not available

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

Information not available

Means to have available in the workplace for specific and immediate treatment

Information not available

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. Wash hands after use.

7.2. Conditions for safe storage, including any incompatibilities

Keep the product in clearly labelled containers. Store the containers sealed, in a well ventilated place, away from direct sunlight.

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.

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.

Protect your hands with gloves of the following type:
Material: Nitrile rubber (NBR)
Before use, check that the protective gloves are not damaged. the material indicated is a possible choice; other materials may be suitable, depending on the specifications indicated by the manufacturer
Thickness: 0,4 mm
In the case of mixtures, the resistance of work gloves to chemical agents must be checked before use as it is not always predictable
Breakthrough time: 480 min
The resistance of gloves depends on various factors, such as temperature. In the case of mixtures, the resistance of work gloves to chemical agents must be checked before use as it is not always predictable

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.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	liquid	Temperature: 20 °C
Colour	white, various	
Odour	characteristic, mild	
Melting point / freezing point	< 5 °C	Method:Derived
Initial boiling point	100 °C	Method:Derived
Flammability	not flammable	Method:Derived
Lower explosive limit	not applicable	
Upper explosive limit	not applicable	
Flash point	> 60 °C	Method:Derived
Auto-ignition temperature	not applicable	
Decomposition temperature	not applicable	
pH	8,5	Method:ISO 19396-1 Concentration: 100 % Temperature: 20 °C
Kinematic viscosity	not available	Reason for missing data:Not significant data for classification
Dynamic viscosity	20000 mPa*s	Method:ISO 2884-1 Temperature: 20 °C
Solubility	partially soluble in water	Method:Derived Temperature: 20 °C
Partition coefficient: n-octanol/water	not applicable	Reason for missing data:Non applicabile a miscele
Vapour pressure	23 hPa	Substance:WATER Vapour pressure: 17,5 mmHg Temperature: 20 °C
Density and/or relative density	1,6 kg/l	Method:ISO 2811-1 Temperature: 20 °C
Relative vapour density	> 1	Method:Derived Temperature: 20 °C
Particle characteristics	not applicable	
Denomination		

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 2004/42/EC) : 1,87 % - 30,00 g/litre

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

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

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

Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

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

ATE (Inhalation) of the mixture:	Not classified (no significant component)
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	Not classified (no significant component)

Reaction mass of 5-chloro-2-methyl-1,2-thiazol-3(2H)-one and 2-methyl-1,2-thiazol-3(2H)-one (3: 1) (C(M)IT/MIT)

LD50 (Dermal):	> 141 mg/kg Rat OECD 402

LD50 (Oral): 66 mg/kg Rat OECD 401
LC50 (Inhalation mists/powders): 0,17 mg/l/4h

1,2-BENZOISOTIAZOL-3(2H)-ONE (BIT)
LD50 (Oral): 450 mg/kg ATP 21
LC50 (Inhalation mists/powders): 0,21 mg/l/4h ATP 21

2-METHYL-2H-ISOTHIAZOL-3-ONE (MIT)
LD50 (Dermal): 300 mg/kg
LD50 (Oral): 120 mg/kg
LC50 (Inhalation mists/powders): 0,34 mg/l/4h

2,2,4-TRIMETHYL-1,3-PENTANDIOL MONOISOBUTYRATE
LD50 (Dermal): > 2000 mg/kg Rabbit
LD50 (Oral): > 2000 mg/kg Rat

Sodium silicate aluminum
LD50 (Dermal): > 5000 mg/kg rat
LD50 (Oral): > 5000 mg/kg rat
LC50 (Inhalation mists/powders): > 5,01 mg/l/4h rat

CALCIUM CARBONATE
LD50 (Oral): 6450 mg/kg Rat

TALC
LC50 (Inhalation mists/powders): > 2,1 mg/l/4h Rat

Titanium dioxide (content <1% of particles with aerodynamic diameter ≤ 10 µm)
LD50 (Oral): > 5000 mg/kg Rat, Method 425 OECD

SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION
May produce an allergic reaction.
Contains:
2-METHYL-2H-ISOTHIAZOL-3-ONE (MIT)
Reaction mass of 5-chloro-2-methyl-1,2-thiazol-3(2H)-one and 2-methyl-1,2-thiazol-3(2H)-one (3: 1) (C(M)IT/MIT)
1,2-BENZOISOTIAZOL-3(2H)-ONE (BIT)

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class
Contains Titanium Dioxide, CAS n. 13463-67-7 (containing <1% of particles with aerodynamic diameter ≤ 10 µm, therefore NOT classified Carc. 2, H351). However, for precautionary reasons, the product has been classified EUH211: Warning! In case of vaporization, dangerous respirable droplets may be formed. Do not breathe vapors or mists.

TALC

Overall IARC evaluation: Perineal use of talc-based body powder is possibly carcinogenic to humans (Group2B). Inhaled talc not containing asbestos or asbestiform fibres is not classifiable as to its carcinogenicity (Group 3).

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

Reaction mass of 5-chloro-2-methyl-1,2-thiazol-3(2H)-one and 2-methyl-1,2-thiazol-3(2H)-one (3: 1) (C(M)IT/MIT)

LC50 - for Fish	0,22 mg/l/96h Oncorhynchus mykiss
EC50 - for Crustacea	0,0052 mg/l/48h Dafnia magna
EC50 - for Algae / Aquatic Plants	0,048 mg/l/72h Pseudokirchnereilla subcapitata
Chronic NOEC for Fish	0,098 mg/l Onchorthyncus Mykiss (OECD 210)
Chronic NOEC for Crustacea	0,004 mg/l Daphina magna (OECD 211)
Chronic NOEC for Algae / Aquatic Plants	0,00064 mg/l Skeletonema costantium (ISO 10263, RAC)

1,2-BENZOISOTIAZOL-3(2H)-ONE (BIT)

LC50 - for Fish	11 mg/l/96h Oncorhynchus mykiss (OECD 203)
EC50 - for Crustacea	16,4 mg/l/48h Daphnia magna (OECD 202)
EC50 - for Algae / Aquatic Plants	0,6 mg/l/72h Selenastrum capricornutum (OECD 201)
Chronic NOEC for Crustacea	1,2 mg/l Daphnia magna OECD 215

2,2,4-TRIMETHYL-1,3-PENTANDIOL MONOISOBUTYRATE

LC50 - for Fish	33 mg/l/96h (Alborella)

EC50 - for Crustacea	147,8 mg/l/48h (Daphnide)
EC50 - for Algae / Aquatic Plants	> 7,49 mg/l/72h Chlorella pyrenoidosa
Chronic NOEC for Fish	> 6 mg/l 96h
Chronic NOEC for Crustacea	> 1,4 mg/l 48h
Sodium silicate aluminum	
LC50 - for Fish	> 10000 mg/l/96h Brachydanio rerio
Titanium dioxide (content <1% of particles with aerodynamic diameter ≤ 10 µm)	
LC50 - for Fish	> 1000 mg/l/96h
EC50 - for Crustacea	> 100 mg/l/48h Test Method 202 OECD

12.2. Persistence and degradability

Reaction mass of 5-chloro-2-methyl-1,2-thiazol-3(2H)-one and 2-methyl-1,2-thiazol-3(2H)-one (3: 1) (C(M)IT/MIT)	
Rapidly degradable	
TALC	
Solubility in water	< 0,1 mg/l
Titanium dioxide (content <1% of particles with aerodynamic diameter ≤ 10 µm)	
Solubility in water	< 0,001 mg/l
Degradability: information not available	

12.3. Bioaccumulative potential

Reaction mass of 5-chloro-2-methyl-1,2-thiazol-3(2H)-one and 2-methyl-1,2-thiazol-3(2H)-one (3: 1) (C(M)IT/MIT)	
BCF	3,6 Calculated
1,2-BENZOISOTIAZOL-3(2H)-ONE (BIT)	
Partition coefficient: n-octanol/water	0,7 n-Octanol/Water, OECD 117
BCF	6,95 Pesce (OECD 305)
2-METHYL-2H-ISOTHIAZOL-3-ONE (MIT)	
Partition coefficient: n-octanol/water	0,32 n-octanolo/water
BCF	3,16

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 ≥ 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. Neat product residues should be considered special non-hazardous waste.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number or ID number

not applicable

14.2. UN proper shipping name

not applicable

14.3. Transport hazard class(es)

not applicable

14.4. Packing group

not applicable

14.5. Environmental hazards

not applicable

14.6. Special precautions for user

not applicable

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 1907/2006

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 ≥ 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

Information not available

VOC (Directive 2004/42/EC) :

Interior matt walls and ceilings (Gloss < 25@60°).

Contains biocidal products

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:

Acute Tox. 2	Acute toxicity, category 2
Acute Tox. 3	Acute toxicity, category 3
Acute Tox. 4	Acute toxicity, category 4
Skin Corr. 1B	Skin corrosion, category 1B
Skin Corr. 1C	Skin corrosion, category 1C
Skin Corr. 1	Skin corrosion, category 1
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Skin Sens. 1A	Skin sensitization, category 1A
Aquatic Acute 1	Hazardous to the aquatic environment, acute toxicity, category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic toxicity, category 1
H310	Fatal in contact with skin.
H330	Fatal if inhaled.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
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.

H317	May cause an allergic skin reaction.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.
EUH210	Safety data sheet available on request.
EUH211	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

Use descriptor system:

PC	**9a**	Coatings and paints, thinners, paint removers

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
24. Delegated Regulation (UE) 2023/1434 (XIX Atp. CLP)
25. Delegated Regulation (UE) 2023/1435 (XX Atp. CLP)
26. Delegated Regulation (UE) 2024/197 (XXI 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.