Safety Data Sheet

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

1.1. Product identifier.
Product name. **INNOKUA INSETTI RTU**

1.2. Relevant identified uses of the substance or mixture and uses advised against.
Description/Use **Repellent product against tiger mosquitoes and red chicken mites**

1.3. Details of the supplier of the safety data sheet.
Name. **COLKIM S.r.l.**
Full address. **Via Piemonte, 50**
District and Country. **40064 OZZANO EMILIA (BO)**
Italia
Tel. 051 / 799445
Fax. 051 / 797555

E-mail address of the competent person.
responsible for the Safety Data Sheet. **info@colkim.it**

Product distribution by: **COLKIM S.r.l. - Via Piemonte, 50 - 40064 OZZANO E. (BO)**

1.4. Emergency telephone number.

For urgent inquiries refer to. **118**

Contact a Poison Control Center:

Ospedale	Città	Indirizzo	CAP	Telefono
CAV “Osp. Pediatrico Bambino Gesù”	Roma	P.zza Sant’Onofrio, 4	00165	06 68593726
Az. Osp. Univ. Foggia	Foggia	V.le Luigi Pinto, 1	71122	0881 732326
Az. Osp. "A. Cardarelli"	Napoli	Via A. Cardarelli, 9	80131	081 7472870
CAV Policlinico “Umbero I”	Roma	V.le del Policlinico, 155	00161	06 49978000
CAV Policlinico "A. Gemelli"	Roma	Largo Agostino Gemelli, 8	00168	06 3054343
Az. Osp. "Careggi" U.O. Tossicologia Medica	Firenze	Largo Brambilla, 3	50134	055 7947819
CAV Centro Nazionale di Informazione Tossicologica	Pavia	Via Salvatore Maugeri, 10	27100	0382 24444
Osp. Niguarda Ca' Granda	Milano	P.zza Ospedale Maggiore, 3	20162	02 66101029
Azienda Ospedaliera Papa Giovanni XXII	Bergamo	P.zza OMS, 1	24127	800883300
CAV centro antiveleni Verona	Verona	Piazzale Aristide Stefani,1	37126	800011858

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Physico-chemical hazards: the product is not classified for this hazard class

The product is not classified as dangerous according to the provisions of Regulation (EC) 1272/2008 (CLP).
However, since the product contains dangerous substances in a concentration such as to be declared in section 3, it requires a safety data sheet with adequate information, in compliance with Regulation (EU) 2015/830.

2.2. Label elements.

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

Hazard pictograms: -

Signal words: -

Hazard statements:

EUH208	Contains: Geraniol, Eucalyptus Globulus leaf Oil, Cymbopogon Winterianus herb oil. May produce an allergic reaction.

Precautionary statements:

P102	Obtain special instructions before use.
P270	Do no eat, drink or smoke when using this product.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P501	Dispose of contents/container in accordance with national regulation

Contains: Geraniol

MEDICAL SURGICAL DEVICE
Ministry of Health registration n° 20633

2.3. Other hazards.

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

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	**x = Conc. %**	**Classification 1272/2008 (CLP).**	**Limiti specifici 1272/2008 (CLP)**
GERANIOL CAS. 106-24-1 EC. 203-377-1 INDEX. 603-241-00-5 Reg. no. 01-2119552430-49-XXXX	0.3 ≤ x < 0.5	Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317	*Non applicabile*
EUCALYPTUS GLOBULUS LEAF OIL CAS 84625-32-1 CE 283-406-2 INDEX - Nr. Reg. 01-2119978250-37-XXXX	0.3 ≤ x < 0.5	Flam. Liq. 3 H226, Asp. Tox. 1 H304, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411	*Non applicabile*
CYMBOPOGON WINTERIANUS HERB OIL CAS 91771-61-8 *CAS 80000-29-1 CE 294-954-7	0.2 ≤ x < 0.4	Acute Tox. 4 H302, Asp. Tox. 1 H304, Eye Dam. 1 H318, Skin Sens. 1 H317, Aquatic Chronic 2 H411	*Non applicabile*

INDEX -

Nr. Reg. 01-2120741487-48-XXXX

* The following CAS numbers have been indicated as they are reported in the formulation approved by the Ministry of Health.

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 15-30 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. If breathing stops, give artificial respiration. Get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Do not induce vomiting. Never give anything unless explicitly authorised by a doctor.

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

No specific information on symptoms and effects caused by the product is known.

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

Treat symptomatically. Consult a physician.

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 (COx mainly).

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.

FOR THOSE WHO DO NOT INTERVENE DIRECTLY
Alert the personnel responsible for the management of such emergencies. Move away from the accident area in not wearing all the protective device referred to under Section 8.

FOR THOSE WHO INTERVENE DIRECTLY
Remove all staff who are not adequately equipped to deal with the emergency.
Wear suitable personal protective equipment referred to in section 8 of the safety data sheet in order to prevent contamination of the skin, eyes and personal clothing. Stop the leak if there is no danger.
Make the area affected by the accident accessible to workers only after adequate reclamation has taken place. Air the premises affected by the accident.

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. (e.g. vermiculite, diatomaceous earth, sand, diatomaceous earth, zeolites, activated carbon, aluminum / silica gel)
Make sure the leakage site is well aired. Provide sufficient ventilation of the place affected by the leak. 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.

Do not eat, drink or smoke during use. Remove contaminated clothing and protective equipment before entering eating areas. Avoid the dispersion of the product in the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a cool and well ventilated place, away from heat, open flames, sparks and other sources of ignition .Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

There are no particular end uses other than the relevant identified uses listed in Section 1.2 of this safety data sheet.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

The product does not contain substances for which there are Community workplace exposure limits (OEL) which require a declaration in this Section.

GERANIOL

Predicted no-effect concentration - PNEC.		
Normal value in fresh water	0.011	mg/l
Normal value in marine water	0.001	mg/l
Normal value for fresh water sediment	0.115	mg/kg/d
Normal value for marine water sediment	0.011	mg/kg/d
Normal value for water, intermittent release	0.106	mg/l
Normal value of STP microorganisms	0.7	mg/l
Normal value for the terrestrial compartment	0.017	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.				13.75 mg/kg bw/d				
Inhalation.				47.8 mg/m^3				161.6 mg/m^3
Skin.			11800 µg/cm^3	7.5 mg/kg bw/d			11800 µg/cm^3	12.5 mg/kg bw/d

EUCALYPTUS GLOBULUS LEAF OIL

Predicted no-effect concentration - PNEC.		
Normal value in fresh water	2.04	µg/l
Normal value in marine water	0.204	µg/l
Normal value for fresh water sediment	0.666	mg/kg/d
Normal value for marine water sediment	0.066	mg/kg/d
Normal value of STP microorganisms	10	mg/l
Normal value for food chain (secondary poisoning)	20	mg/kg
Normal value for the terrestrial compartment	0.134	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.				0.5 mg/kg bw/d				
Inhalation.				0.87 mg/m^3				3.52 mg/m^3
Skin.				0.5 mg/kg bw/d				1 mg/kg bw/d

CYMBOPOGON WINTERIANUS HERB OIL		
Predicted no-effect concentration - PNEC.		
Normal value in fresh water	0.7	µg/l
Normal value in marine water	0.07	µg/l
Normal value for fresh water sediment	9.111	µg/kg/d
Normal value for marine water sediment	0.911	µg/kg/d
Normal value of STP microorganisms	0.7	mg/l
Normal value for the terrestrial compartment	1.411	µg/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.				0.46 mg/kg bw/d				
Inhalation.				0.81 mg/m^3				2.73 mg/m^3
Skin.				5.81 mg/kg bw/d				9.69 mg/kg bw/d

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

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.
For the choice of personal protective equipment, if necessary, seek advice from your chemical suppliers.
Personal protective equipment must bear the CE mark which certifies their compliance with current regulations.

HAND PROTECTION
Protect hands with category III work gloves, class A (advised materials butilic rubber or equivalents) (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
In case of preparation he 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 reg (EU) 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 166).

RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, 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). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
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.

Appearance	Clear liquid
Colour	Pale orange

Odour	Slightly pungent
Odour threshold.	Not available
pH.	4.48 ± 0.5
Melting point / freezing point.	Not available
Initial boiling point.	Not available
Boiling range.	Not available
Flash point.	Not available
Evaporation Rate	Not available
Flammability of solids and gases	Not applicable (the product is liquid)
Lower inflammability limit.	Not applicable
Upper inflammability limit.	Not applicable
Lower explosive limit.	Not applicable
Upper explosive limit.	Not applicable
Vapour pressure.	1 g/L: 47.8 mN/m
Vapour density	Not applicable (the product is a mixture)
Relative density.	1,020 (20°C)
Solubility	Not available
Partition coefficient: n-octanol/water	Not applicable (the product is a mixture)
Auto-ignition temperature.	Not applicable (the product is not combustible)
Decomposition temperature.	Not available
Viscosity	1.48 mm^2/s
Explosive properties	Not applicable (absence of chemical groups associated with explosive properties pursuant to the provisions of Annex I, Part 2, chap. 2.1.4.3 of reg. (EC) 1272/2008 - CLP)
Oxidising properties	Not applicable (absence of the requirements related to the presence of atoms and / or chemical bonds associated with oxidizing properties in the molecules of the components in accordance with the provisions of Annex I, Part 2, 2.13.4 of Regulation (EC) 1272/2008 - CLP)

9.2. Other 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.

Avoid contact with acids and bases

10.5. Incompatible materials.

Strong acids and bases

10.6. Hazardous decomposition products.

By thermal decomposition, gases and vapors potentially harmful to health can be released for example COx.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects defined in regualation (EC) n. 1272/2008

In the absence of experimental toxicological data on the product itself, any health hazards of the product have been assessed on the basis of the properties of the substances contained, according to the criteria established by the reference legislation for classification.
Therefore, consider the concentration of the individual dangerous substances possibly mentioned in sect. 3, to evaluate the toxicological effects deriving from exposure to the product.

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.
Based on the available data and considering the classification criteria of Annex I, Part 3 of Reg. (EC) 1272/2008 and subsequent amendments, the product is not classified for this hazard class.

LC50 (Inhalation) of the mixture: Not classified (no relevant component)
LD50 (Oral) of the mixture: Not classified (no relevant component)
LD50 (Dermal) of the mixture: Not classified (no relevant component)

Geraniol
LD50 (Oral) 3600 mg/kg Rat
LD50 (Dermal) > 5000 mg/kg Rabbit

Eucalyptus Globulus leaf oil
LD50 (Oral) 3320 mg/kg Mouse
LD50 (Dermal) > 5000 mg/kg Rabbit

Cymbopogon Winterianus herb oil.
LD50 (Oral) > 300 mg/kg Rat
LD50 (Dermal) > 2000 mg/kg Rat

SKIN CORROSION / IRRITATION
Based on the available data and considering the classification criteria provided for in table 3.2.3 of Annex I, of Reg. (EC) 1272/2008 and subsequent amendments, the product is not classified for this hazard class.

SERIOUS EYE DAMAGE / IRRITATION
Based on the available data and considering the classification criteria provided for in table 3.3.3 of Annex I, of Reg. (EC) 1272/2008 and subsequent amendments, the product is not classified for this hazard class.

RESPIRATORY OR SKIN SENSITISATION
Based on the available data and considering the classification criteria of Annex I, Part 3 of Reg. (EC) 1272/2008 and subsequent amendments, the product is not classified for this hazard class.

GERM CELL MUTAGENICITY
Based on the available data and considering the classification criteria of Annex I, Part 3 of Reg. (EC) 1272/2008 and subsequent amendments, the product is not classified for this hazard class.

CARCINOGENICITY
Based on the available data and considering the classification criteria of Annex I, Part 3 of Reg. (EC) 1272/2008 and subsequent amendments, the product is not classified for this hazard class.

REPRODUCTIVE TOXICITY
Based on the available data and considering the classification criteria of Annex I, Part 3 of Reg. (EC) 1272/2008 and subsequent amendments, the product is not classified for this hazard class.

SPECIFIC TARGET ORGAN TOXICITY (STOT) - SINGLE EXPOSURE
Based on the available data and considering the classification criteria of Annex I, Part 3 of Reg. (EC) 1272/2008 and subsequent amendments, the product is not classified for this hazard class.

SPECIFIC TARGET ORGAN TOXICITY (STOT) - REPEATED EXPOSURE
Based on the available data and considering the classification criteria of Annex I, Part 3 of Reg. (EC) 1272/2008 and subsequent amendments, the product is not classified for this hazard class.

ASPIRATION HAZARD
Based on the available data and considering the classification criteria of Annex I, Part 3 of Reg. (EC) 1272/2008 and subsequent amendments, the product is not classified for this hazard class.

11.2. Information on other hazard

Information not available

SECTION 12. Ecological information.

12.1. Toxicity.

As specific data on the preparation are not available, use according to good working practices, avoiding to disperse the product in the environment. Avoid dispersing the product in the ground or water courses. Notify the competent authorities if the product has reached water courses or if it has contaminated the soil or vegetation. Take measures to minimize the effects on the aquifer.
Based on the assessment of the classification of components and the classification provisions of Annex I, Part 4 of the reg. (EC) 1272/2008 and subsequent amendments, the mixture is not classified as dangerous for the environment.

GERANIOL

LC50 - Fish	22 mg/L/96h Dario Rerio
EC50 - Crustacean	10.8 mg/L/48h Daphnia Magna

12.2. Persistence and degradability.

Informations not available

12.3. Bioaccumulative potential.

Informations not available

12.4. Mobility in soil.

Informations 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 greater than 0,1%.

12.6. 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.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

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 to be considered dangerous pursuant to the provisions in force on the transport of dangerous goods by road (A.D.R.), by rail (RID), by sea (IMDG Code) and by air (IATA).

14.1. ONU number or ID number

Not applicable

14.2. ONU 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. Bulk shipping in accordance with IMO acts.
Information not relevant.

SECTION 15. Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Seveso Category - Directive 2012/18/EC: none

Biocide regulation (Reg (EU) 528/2012): not applicable

Detergents regulation (reg. (EC) 648/2004): not applicable

Dir. 2004/42 / EC - VOC / Legislative Decree 161/2006: not applicable

PMC regulation:
Decree of the Republic President n. 392 of 6 June 1998
Decree of the Ministry of Health New Registration of the Medical Surgical Unit of 30 September 2020 and subsequent amendment of 21 October 2020, New Registration no. 20633

The product contains the active ingredient: Geraniol - CAS: 106-24-1

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

Product.
Point. 3-40

Substances in Candidate List (Art. 59 REACH).

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

Substances subject to authorisarion (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.
Information not available

15.2. Chemical safety assessment.

A safety assessment has been carried out for the following contained substances:

Geraniol

Eucalyptus Globulus leaf oil

SECTION 16. Other information.

MINISTRY OF HEALTH AUTHORIZATION N.13523

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

Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
Eye. Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Carcinogenicity, category 2
Skin Sens. 1	Sensibilizzazione cutanea, category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H226	Liquido e vapori infiammabili.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways..
H318	Causes serious eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H411	Toxic to aquatic life with long lasting effects
EUH210	Safety data sheet available on request

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

CALCULATION METHODS
Physico-chemical hazards: the hazard was derived from the classification criteria of the CLP Regulation Annex I Part 2 and subsequent amendments.

The health hazards were assessed using the calculation method provided for by Reg. (EC) 1272/2008 (CLP) and subsequent amendments. for the classification of mixtures when there are data on all or some of the components of the mixture:

Acute Tox: criteria application Table 3.1.1. Annex I Part 3 of the CLP Regulation and subsequent amendments
Skin Corr. 1A / 1B / 1C H314: application formula additivity criteria Table 3.2.3 Annex I Part 3 of the CLP Regulation

Skin Irrit 2 H315: application formula additivity criteria Table 3.2.3 Annex I Part 3 of the CLP Regulation
Eye Dam 1 H318: application of additivity formula for criteria Table 3.3.3 Annex I Part 3 of the CLP Regulation
Eye Irrit. 2 H319: application of the additivity criteria formula Table 3.3.3 Annex I Part 3 of the CLP Regulation
Eye Irrit. 2 H319: table 3.3.3 of Annex I, Part 3 of Reg. (EC) 1272/2008 (CLP) and subsequent amendments
Skin Sens 1A / 1B / 1 H317 Table 3.4.5 of Annex I, Part 3 of Reg. (EC) 1272/2008 (CLP) and subsequent amendments
Resp Sens 1A / 1B / 1 H334 Table 3.4.5 of Annex I, Part 3 of Reg. (EC) 1272/2008 (CLP) and subsequent amendments
Mute. 1A / 1B, 2 H340 - H341: table 3.5.2 Annex I Part 3 of the CLP Regulation as amended
Carc 1A / 1B, 2 H350 - H351: table 3.6.2 Annex I Part 3 of the CLP Regulation as amended
Repr 1A / 1B, 2 H360 - H361: table 3.7.2 Annex I Part 3 of the CLP Regulation as amended
STOT SE 1, 2 H370 - 371: application of calculation methods - table 3.8.3 of Annex I, Part 3 of Reg. (EC) 1272/2008 (CLP) and subsequent amendments
STOT SE 3 H336: cap. 3.8.3.4.5 of Annex I, Part 3 of Reg. (EC) 1272/2008 (CLP) and subsequent amendments
STOT RE 1, 2 H372 - H373: table 3.9.4 Annex I Part 3 of the CLP Regulation as amended
Asp Tox 1 H304: application of criteria 3.10 Annex I Part 3 of the CLP Regulation as amended

The dangers to the environment were assessed using the calculation method provided for by Reg. (EC) 1272/2008 (CLP) and subsequent amendments for the classification of mixtures when there are data on all or some of the components of the mixture:
toxicity to the aquatic environment acute effects: table 4.1.1 of Annex I, Part 4 of Reg. (EC) 1272/2008 (CLP) and subsequent amendments;
toxicity to the aquatic environment chronic effects: table 4.1.2 of Annex I, Part 4 of Reg. (EC) 1272/2008 (CLP) and subsequent amendments

GENERAL BIBLIOGRAPHY

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2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
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)
- 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.
The classification of the product is based on the calculation methods set out in Annex I of CLP, unless otherwise indicated in sections 11 and 12.
The methods for evaluating the chemical-physical properties are reported in section 9.