

Safety Data Sheet

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

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

1.1. Product identifier

Code: DT12A
 Product name DET 2
 Chemical name and synonym Aqueous solution of oxydizing substances and surfactants

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

Intended use Stain remover for wine, coffee, fruit for all types of stone material

| Identified Uses | Industrial | Professional | Consumer |
|---|------------|---|----------|
| Professional uses: public sector (administration, education, entertainment, services, crafts) | - | ERC: 8b, 8e. PROC: 10, 11, 19. PC: 1. | - |

1.3. Details of the supplier of the safety data sheet

Name Industria Chimica General S.r.l.
 Full address Via Repubblica di San Marino 8
 District and Country 41122 Modena Italy (MO)
 e-mail address of the competent person responsible for the Safety Data Sheet ricerca@generalchemical.it
 Supplier: Industria Chimica General S.r.l.

1.4. Emergency telephone number

For urgent inquiries refer to
 Milano, Italy (+39) 02 66101029 Centro Antiveleni Ospedale Niguarda Ca' Granda
 Pavia, Italy (+39) 0382 24444 Centro Antiveleni IRCSS Fondazione Maugeri
 Bergamo, Italy (+39) 800 883300 Centro Antiveleni Ospedali Riuniti
 Firenze, Italy (+39) 055 7947819 Centro Antiveleni Ospedale Careggi
 Roma, Italy (+39) 06 3054343 Centro Antiveleni Policlinico Gemelli
 Roma, Italy (+39) 06 49978000 Centro Antiveleni Policlinico Umberto I
 Napoli, Italy (+39) 081 7472870 Centro Antiveleni Ospedale Cardarelli

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:

| | | |
|--|------|--|
| Substance or mixture corrosive to metals, category 1 | H290 | May be corrosive to metals. |
| 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. |

SECTION 2. Hazards identification ... / >>

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:

| | |
|---------------|---|
| H290 | May be corrosive to metals. |
| H314 | Causes severe skin burns and eye damage. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH206 | Warning! Do not use together with other products. May release dangerous gases (chlorine). |

Precautionary statements:

| | |
|-----------------------|--|
| P260 | Do not breathe vapours or spray. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. |
| P280 | Wear protective gloves/ protective clothing / eye protection / face protection. |
| P310 | Immediately call a POISON CENTER / doctor / . . . |
| P501 | Dispose of the product / container in an authorized installation according to national and local regulations. |

Contains: sodium hydroxide caustic soda
sodium hypochlorite, solution

Ingredients compliant with Regulation (EC) No. 648/2004

Less than 5%

soap, amphoteric surfactants, chlorine-based bleaching agents

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) |
|--------------------------------------|------------------|---|
| sodium hypochlorite, solution | | |
| 12% - active chlorine | | |
| INDEX 017-011-00-1 | 3 \leq x $<$ 5 | Met. Corr. 1 H290, Skin Corr. 1B H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=10, Aquatic Chronic 1 H410 M=1, EUH031, Classification note according to Annex VI to the CLP Regulation: B EUH031: \geq 5% |
| EC 231-668-3 | | |
| CAS 7681-52-9 | | |
| REACH Reg. 01-2119488154-34 | | |
| sodium hydroxide caustic soda | | |
| INDEX 011-002-00-6 | 1 \leq x $<$ 2 | Met. Corr. 1 H290, Skin Corr. 1A H314, Eye Dam. 1 H318 |
| EC 215-185-5 | | Skin Corr. 1B H314: \geq 2%, Skin Irrit. 2 H315: \geq 0,5%, Eye Dam. 1 H318: \geq 2%, Eye Irrit. 2 H319: \geq 0,5% |
| CAS 1310-73-2 | | |
| REACH Reg. 01-2119457892-27 | | |

SECTION 3. Composition/information on ingredients ... / >>

POTASSIUM LAURATE

INDEX 1 ≤ x < 5

Eye Irrit. 2 H319, Skin Irrit. 2 H315

EC 233-344-7

CAS 10124-65-9

N, N-DIMETHYLtetraDecylamine N-OXIDE

INDEX 0,5 ≤ x < 1

Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Aquatic Acute 1

H400 M=1, Aquatic Chronic 2 H411

EC 222-059-3

CAS 3332-27-2

REACH Reg. 01-2119949262-37

Octadecan-1-ol, ethoxylated

INDEX 0 ≤ x < 0

Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411

EC 500-017-8

CAS 9005-00-9

REACH Reg. 01-2119977092-34

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

SECTION 4. First aid measures

4.1. Description of first aid measures

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

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

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

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

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

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

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

In case of accident or discomfort, consult a doctor immediately, showing the label and / or the safety data sheet. No special treatment provided.

SECTION 5. Firefighting measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

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

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

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

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

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

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

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

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

6.4. Reference to other sections

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

SECTION 7. Handling and storage

7.1. Precautions for safe handling

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

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

Information not available

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory references:

| | | |
|-----|-----------------------------|---|
| ESP | España | Límites de exposición profesional para agentes químicos en España 2023 |
| FRA | France | Valeurs limites d'exposition professionnelle aux agents chimiques en FranceDécret n° 2021-1849 du 28 décembre 2021 |
| GRC | Ελλάδα | Π.Δ. 26/2020 (ΦΕΚ 50/A' 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ ”σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιγόνους παράγοντες κατά την εργασία”» |
| POL | Polska | Rozporządzenie ministra rozwoju, pracy i technologii z dnia 18 lutego 2021 r. Zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy |
| GBR | United Kingdom TLV-ACGIH | EH40/2005 Workplace exposure limits (Fourth Edition 2020) ACGIH 2023 |

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

sodium hypochlorite, solution

Threshold Limit Value

| Type | Country | TWA/8h mg/m3 | ppm | STEL/15min mg/m3 | ppm | Remarks / Observations |
|-----------|---------|-----------------|-----|---------------------|-----|-------------------------|
| TLV-ACGIH | | | | 1,5 | 0,5 | Cloro, CAS n. 7782-50-5 |

Predicted no-effect concentration - PNEC

| | | |
|--|---------|------|
| Normal value in fresh water | 0,00026 | mg/l |
| Normal value in marine water | 0,00004 | mg/l |
| | 2 | |
| Normal value for water, intermittent release | 0,00026 | mg/l |
| Normal value of STP microorganisms | 0,03 | mg/l |

Health - Derived no-effect level - DNEL / DMEL

| Route of exposure | Effects on consumers | | Effects on workers | | | | | |
|-------------------|----------------------|----------------|--------------------|------------------|-------------|----------------|---------------|------------------|
| | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Oral | | | | | | | | 0,26 mg/kg/d |
| Inhalation | 3,1 mg/m3 | 3,1 mg/m3 | 1,55 mg/m3 | 1,55 mg/m3 | 3,1 mg/m3 | 3,1 mg/m3 | 1,55 mg/m3 | 1,55 mg/m3 |

sodium hydroxide caustic soda

Threshold Limit Value

| Type | Country | TWA/8h mg/m3 | ppm | STEL/15min mg/m3 | ppm | Remarks / Observations |
|-----------|---------|-----------------|-----|---------------------|-----|------------------------|
| VLA | ESP | | | 2 | | |
| VLEP | FRA | 2 | | | | |
| TLV | GRC | 2 | | 2 | | |
| NDS/NDSCh | POL | 0,5 | | 1 | | |
| WEL | GBR | | | 2 | | |
| TLV-ACGIH | | | | 2 (C) | | |

Health - Derived no-effect level - DNEL / DMEL

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

N, N-DIMETHYLtetradecylamine N-OXIDE

Predicted no-effect concentration - PNEC

| | | |
|--|---------|-------|
| Normal value in fresh water | 0,0335 | mg/l |
| Normal value in marine water | 0,00335 | mg/l |
| Normal value for fresh water sediment | 5,24 | mg/kg |
| Normal value for marine water sediment | 0,524 | mg/kg |
| Normal value for water, intermittent release | 0,0335 | mg/l |
| Normal value for the terrestrial compartment | 1,02 | mg/kg |

Health - Derived no-effect level - DNEL / DMEL

| Route of exposure | Effects on consumers | | Effects on workers | | | | | |
|-------------------|----------------------|----------------|--------------------|------------------|-------------|----------------|---------------|------------------|
| | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Oral | 0,44 mg/kg bw/d | | 0,44 mg/kg bw/d | | | | | |
| Inhalation | 1,53 mg/m3 | | 1,53 mg/m3 | | | 6,2 mg/m3 | | 6,2 mg/m3 |
| Skin | 5,5 mg/kg bw/d | | 5,5 mg/kg bw/d | | | 11 mg/kg bw/d | | 11 mg/kg bw/d |

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

Octadecan-1-ol, ethoxylated

Predicted no-effect concentration - PNEC

| | | |
|--|--------|-------|
| Normal value in fresh water | 0,0019 | mg/l |
| Normal value in marine water | 0,0019 | mg/l |
| Normal value for fresh water sediment | 81,1 | mg/kg |
| Normal value for marine water sediment | 81,1 | mg/kg |
| Normal value for water, intermittent release | 0,0032 | mg/l |
| Normal value of STP microorganisms | 1,4 | mg/l |
| Normal value for the terrestrial compartment | 1 | mg/kg |

Health - Derived no-effect level - DNEL / DMEL

| Route of exposure | Effects on consumers | | | Effects on workers | | | | |
|-------------------|----------------------|----------------|---------------|--------------------|-------------|----------------|-----------------------|------------------|
| | Acute local | Acute systemic | Chronic local | Chronic systemic | Acute local | Acute systemic | Chronic local | Chronic systemic |
| Oral | | | | 25 mg/kg bw/d | | | | |
| Inhalation | | | | 87 mg/m3 | | | 294 mg/m3 | |
| Skin | | | | 1250 mg/kg bw/d | | | 2080 mg/kg bw/d | |

Legend:

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

8.2. Exposure controls

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

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

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

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

Protect your hands with category III work gloves (ref. Standard EN 374).

For the final choice of material for work gloves, the following must be considered: compatibility, degradation, breakage time and permeation. In the case of preparations, the resistance of work gloves to chemical agents must be checked before use as it is unpredictable. Gloves have a wear time that depends on the duration and mode of use.

SKIN PROTECTION

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

EYE PROTECTION

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

RESPIRATORY PROTECTION

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. Use a mask with a type B 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 | dense liquid | |
| Colour | transparent | |
| Odour | pungent | |
| Melting point / freezing point | not available | |
| Initial boiling point | > 100 °C | |
| Flammability | not flammable | |

SECTION 9. Physical and chemical properties ... / >>

| | |
|--|---------------------------------------|
| Lower explosive limit | not available |
| Upper explosive limit | not available |
| Flash point | not applicable |
| Auto-ignition temperature | not available |
| Decomposition temperature | not available |
| pH | 13,5 |
| Kinematic viscosity | >20,5 mm ² /sec (40°C) |
| Solubility | soluble in water |
| Partition coefficient: n-octanol/water | not available |
| Vapour pressure | 17,5 mmHg |
| Density and/or relative density | 1,3 kg/l |
| Relative vapour density | not available |
| Particle characteristics | not applicable |
| | Substance:WATER Temperature: 20 °C |

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) | 0 % |
| Explosive properties | not explosive |
| Oxidising properties | non-oxidizing |

SECTION 10. Stability and reactivity**10.1. Reactivity**

There are no particular risks of reaction with other substances under 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.

sodium hydroxide caustic soda

Avoid exposure to: air, moisture, sources of heat.

10.5. Incompatible materials

sodium hydroxide caustic soda

Incompatible with: strong acids, ammonia, zinc, lead, aluminium, water, flammable liquids.

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information**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

SECTION 11. Toxicological information ... / >>

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)

sodium hypochlorite, solution

LD50 (Dermal):

> 2000 mg/kg rat

LD50 (Oral):

> 1100 mg/kg Rat

LC50 (Inhalation mists/powders):

> 10500 mg/m³/1h rat

sodium hydroxide caustic soda

LD50 (Dermal):

1350 mg/kg Rat

LD50 (Oral):

1350 mg/kg Rat

N, N-DIMETHYLTRADECYLAMINE N-OXIDE

LD50 (Oral):

1495 mg/kg rat

Octadecan-1-ol, ethoxylated

LD50 (Dermal):

> 2000 mg/kg rat

LD50 (Oral):

> 21000 mg/kg rat

LC50 (Inhalation vapours):

> 1,6 mg/l/1h rat

SKIN CORROSION / IRRITATION

Corrosive for the skin

Classification according to the experimental Ph value

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class Viscosity: >20,5 mm²/sec (40°C)

SECTION 11. Toxicological information ... / >>

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

N, N-DIMETHYLTRADECYLAMINE N-OXIDE

| | |
|---|---------------|
| LC50 - for Fish | 2,4 mg/l/96h |
| EC50 - for Crustacea | 2,64 mg/l/48h |
| EC50 - for Algae / Aquatic Plants | 0,19 mg/l/72h |
| Chronic NOEC for Algae / Aquatic Plants | 0,067 mg/l |

sodium hypochlorite, solution

| | |
|---|--|
| LC50 - for Fish | 0,059 mg/l/96h <i>Oncorhynchus mykiss</i> |
| EC50 - for Crustacea | 0,141 mg/l/48h <i>Daphnia magna</i> |
| EC50 - for Algae / Aquatic Plants | 0,04 mg/l/72h <i>Pseudokirchneriella subcapitata</i> |
| Chronic NOEC for Fish | 0,04 mg/l 28d |
| Chronic NOEC for Algae / Aquatic Plants | 0,017 mg/l <i>Pseudokirchneriella subcapitata</i> |

Octadecan-1-ol, ethoxylated

| | |
|-----------------------------------|--|
| LC50 - for Fish | 108 mg/l/96h <i>Danio rerio</i> - ECHA database |
| EC50 - for Crustacea | 51 mg/l/48h <i>Daphnia magna</i> - ECHA database |
| EC50 - for Algae / Aquatic Plants | > 10 mg/l/72h <i>Pseudokirchneriella subcapitata</i> - ECHA database |
| Chronic NOEC for Fish | 0,28 mg/l <i>Pimephales promelas</i> |
| Chronic NOEC for Crustacea | 0,77 mg/l <i>Daphnia magna</i> |

12.2. Persistence and degradability

POTASSIUM LAURATE

This surfactant complies with the biodegradability criteria established by regulation (EC) no. 648/2004 relating to detergents.

It can be classified as easily biodegradable.

All supporting data are kept available to the competent authorities of the member states and will be provided, at their explicit request or at the request of a manufacturer of the formulation, to the aforementioned authorities.

N, N-DIMETHYLTRADECYLAMINE N-OXIDE

This surfactant complies with the biodegradability criteria established by Regulation (EC) No. 648/2004 relating to detergents.

It can be classified as readily biodegradable.

All supporting data are kept available to the competent authorities of the member states and will be provided, upon their explicit request or at the request of a manufacturer of the formulation, to the aforementioned authorities.

N, N-DIMETHYLTRADECYLAMINE N-OXIDE

Rapidly degradable

sodium hydroxide caustic soda

| | |
|--|--------------|
| Solubility in water | > 10000 mg/l |
| Degradability: information not available | |

sodium hypochlorite, solution

| | |
|---------------------|-------------------|
| Solubility in water | 1000 - 10000 mg/l |
| Rapidly degradable | |

Octadecan-1-ol, ethoxylated

| | |
|---------------------|--|
| Solubility in water | 0,015 mg/l 25°C |
| Rapidly degradable | Degradable: 83.6% (CO ₂ evolution) in 28 days (OECD 301B) |

12.3. Bioaccumulative potential

sodium hypochlorite, solution

| | |
|--|-------|
| Partition coefficient: n-octanol/water | -3,42 |
|--|-------|

Octadecan-1-ol, ethoxylated

| | |
|--|------|
| Partition coefficient: n-octanol/water | 7,07 |
|--|------|

SECTION 12. Ecological information ... / >>

BCF

< 400 Pimephales promelas

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessmentOn 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 1760

14.2. UN proper shipping name

ADR / RID: CORROSIVE LIQUID, N.O.S. (sodium hypochlorite, solution; sodium hydroxide caustic soda)

IMDG: CORROSIVE LIQUID, N.O.S. (sodium hypochlorite, solution; sodium hydroxide caustic soda)

IATA: CORROSIVE LIQUID, N.O.S. (sodium hypochlorite, solution; sodium hydroxide caustic soda)

14.3. Transport hazard class(es)

ADR / RID: Class: 8 Label: 8



IMDG: Class: 8 Label: 8



IATA: Class: 8 Label: 8

**14.4. Packing group**

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards

ADR / RID: NO

IMDG: NO

IATA: NO

SECTION 14. Transport information ... / >>**14.6. Special precautions for user**

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

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

| | |
|---------------------|----|
| Product | |
| Point | 3 |
| Contained substance | |
| Point | 75 |

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

Substances in Candidate List (Art. 59 REACH)

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

Substances subject to authorisation (Annex XIV REACH)

None

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

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

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

The surfactant (s) contained in this formulation complies (comply) with the biodegradability criteria established by Regulation (EC) no. 648/2004 relating to detergents. All the supporting data are kept available to the competent authorities of the Member States and will be provided, upon their explicit request or at the request of a manufacturer of the formulation, to the aforementioned authorities.

Additional regulations, limitations and legal requirements

Regulation (EC) No. 648/2004 of March 31, 2004 relating to detergents

15.2. Chemical safety assessment

A chemical safety assessment has been performed for the following contained substances

sodium hypochlorite, solution

sodium hydroxide caustic soda

N, N-DIMETHYLTRADECYLAMINE N-OXIDE

This safety data sheet contains one or more Exposure Scenarios in an integrated form. Contents have been included in sections 1.2, 8, 9, 12, 15 and 16 of this safety data sheet.

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 |
| Skin Corr. 1B | Skin corrosion, category 1B |
| Eye Dam. 1 | Serious eye damage, category 1 |
| Eye Irrit. 2 | Eye irritation, category 2 |
| Skin Irrit. 2 | Skin irritation, category 2 |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, 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. |
| H319 | Causes serious eye irritation. |
| H315 | Causes skin irritation. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH031 | Contact with acids liberates toxic gas. |
| EUH206 | Warning! Do not use together with other products. May release dangerous gases (chlorine). |

Use descriptor system:

| | |
|----------------|--|
| ERC 8b | Widespread use of reactive processing aid (no inclusion into or onto article, indoor) |
| ERC 8e | Widespread use of reactive processing aid (no inclusion into or onto article, outdoor) |
| PC 1 | Adhesives, sealants |
| PROC 10 | Roller application or brushing |
| PROC 11 | Non industrial spraying |
| PROC 19 | Manual activities involving hand contact |

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 ESI (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

SECTION 16. Other information ... / >>

- 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

- 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:

02.