

Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

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

1.1. Product identifier

Code: **U051900004**
Product name: **ECC P250**

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

Intended use: **Cleaner for electrical contacts.**
Uses advised against: **Different uses than those intended.**

1.3. Details of the supplier of the safety data sheet

Name: **CENTRO DISTRIBUZIONE UTENSILI SCPA**
Full address: **Via delle Gerole, 19**
District and Country: **20867 CAPONAGO (MB)**
ITALY
tel. **+39 02 95746081**
fax. **+ 39 02 95745182**e-mail address of the competent person
responsible for the Safety Data Sheet
Product distribution by:**info@cdu.net**
CENTRO DISTRIBUZIONE UTENSILI SCPA

1.4. Emergency telephone number

For urgent inquiries refer to **CENTRO DISTRIBUZIONE UTENSILI SCPA**
+39 02 95746081 (Technical support - Office hour 8.30-12.30 - 13.30-17.30)

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 2015/830. 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:

| | | |
|--|------|---|
| Aerosol, category 1 | H222 | Extremely flammable aerosol. |
| | H229 | Pressurised container: may burst if heated. |
| Aspiration hazard, category 1 | H304 | May be fatal if swallowed and enters airways. |
| Eye irritation, category 2 | H319 | Causes serious eye irritation. |
| Skin irritation, category 2 | H315 | Causes skin irritation. |
| Specific target organ toxicity - single exposure, category 3 | H336 | May cause drowsiness or dizziness. |
| Hazardous to the aquatic environment, acute toxicity, category 1 | H400 | Very toxic to aquatic life. |
| Hazardous to the aquatic environment, chronic toxicity, category 1 | H410 | Very toxic to aquatic life with long lasting effects. |

2.2. Label elements

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

Hazard pictograms:



Signal words:

DANGER



Hazard statements:

| | |
|-------------|---|
| H222 | Extremely flammable aerosol. |
| H229 | Pressurised container: may burst if heated. |
| H319 | Causes serious eye irritation. |
| H315 | Causes skin irritation. |
| H336 | May cause drowsiness or dizziness. |
| H410 | Very toxic to aquatic life with long lasting effects. |

Precautionary statements:

| | |
|------------------|--|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P251 | Do not pierce or burn, even after use. |
| P410+P412 | Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F. |
| P501 | Dispose of contents / container to in accordance with local and national regulations. |
| P102 | Keep out of reach of children. |
| P211 | Do not spray on an open flame or other ignition source. |
| P271 | Use only outdoors or in a well-ventilated area. |

| | |
|------------------|--------------------------------|
| Contains: | CYCLOHEXANE; ETHYL ACETATE. |
|------------------|--------------------------------|

Statements on the aspiration toxicity classification were not included in the label elements, based on section 1.3.3. of Annex I to CLP.

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

30% and more: aliphatic hydrocarbons.

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%.

SECTION 3. Composition/information on ingredients**3.2. Mixtures**

Contains:

| Identification | X = Conc. % | Classification 1272/2008 (CLP) |
|---------------------------|-----------------------------|---|
| CYCLOHEXANE | | |
| CAS 110-82-7 | 42,74 \leq x \leq 52,74 | Flam. Liq. 2 H225, Asp. Tox. 1 H304, Skin Irrit. 2 H315, STOT SE 3 H336, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1 |
| EC 203-806-2 | | |
| INDEX 601-017-00-1 | | |
| Reg. no. 01-2119463273-41 | | |
| PROPANE | | |
| CAS 74-98-6 | 14,44 \leq x \leq 24,44 | Flam. Gas 1A H220, Press. Gas (Liq.) H280 |
| EC 200-827-9 | | |
| INDEX 601-003-00-5 | | |
| Reg. no. 01-2119486944-21 | | |
| BUTANE | | |
| CAS 106-97-8 | 7,96 \leq x \leq 10,96 | Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: C |
| EC 203-448-7 | | |
| INDEX 601-004-00-0 | | |
| Reg. no. 01-2119474691-32 | | |
| ETHYL ACETATE | | |
| CAS 141-78-6 | 4,50 \leq x \leq 6,52 | Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066 |
| EC 205-500-4 | | |



INDEX 607-022-00-5

Reg. no. 01-2119475103-46

ISOBUTANE

CAS 75-28-5

$3,30 \leq x \leq 5,30$

Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to Annex VI to the CLP Regulation: C

EC 200-857-2

INDEX 601-004-00-0

Reg. no. 01-2119485395-27

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

The product is an aerosol containing propellants. For the purposes of calculation of the health hazards, propellants are not considered (unless they have health hazards). The percentages indicated are inclusive of the propellants.

Percentage of propellants max: 40,74 %

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. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

CYCLOHEXANE

In case of skin contact: causes skin irritation.

In case of inhalation: may cause central nervous system depression. It can cause drowsiness or dizziness.

In case of ingestion: may cause central nervous system depression. It can be fatal if swallowed and if it enters the respiratory tract. Irritating to mouth, throat and stomach.

ETHYL ACETATE

In case of eye contact: slight irritation.

In case of prolonged contact with the skin: dry skin, cracking.

In case of inhalation: exposure to high concentrations can irritate the respiratory tract. It can cause irritation of the nasal mucosa, central nervous system depression, dizziness, headache, narcosis and loss of consciousness.

In case of ingestion: causes nausea, vomiting, risk of chemical pneumonia, central nervous system depression.

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

Information for the doctor: symptomatically treatment.

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

If overheated, aerosol cans can deform, explode and be propelled considerable distances. Put a protective helmet on before approaching the 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.

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

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. Send away individuals who are not suitably equipped. Wear protective gloves / protective clothing / eye protection / face protection.

6.2. Environmental precautions

Do not disperse in the environment.

6.3. Methods and material for containment and cleaning up

Use inert absorbent material to soak up leaked product. 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

Avoid bunching of electrostatic charges. Do not spray on flames or incandescent bodies. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Do not eat, drink or smoke during use. Do not breathe spray.

7.2. Conditions for safe storage, including any incompatibilities

Store in a place where adequate ventilation is ensured, away from direct sunlight at a temperature below 50°C / 122°F, away from any combustion sources.

Storage class TRGS 510 (Germany): 2B

7.3. Specific end use(s)

Cleaner for electrical contacts.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Regulatory References:

| | | |
|-----|------------------|---|
| AUS | Österreich | Gesamte Rechtsvorschrift für Grenzwertverordnung 2018, Fassung vom 17.10.2018 |
| BEL | Belgique | AR du 11/3/2002. La liste est mise à jour pour 2017 |
| BGR | България | МИНИСТЕРСТВО НА ТРУДА И СОЦИАЛНАТА ПОЛИТИКА МИНИСТЕРСТВО НА ЗДРАВЕОПАЗВАНЕТО НАРЕДБА No 13 от 30 декември 2003 г (4 Септември 2018г) |
| CHE | Suisse / Schweiz | Valeurs limites d'exposition aux postes de travail en Suisse: valeurs VME/VLE. Version Juin 2019 (SUVA) |
| CYP | Κύπρος | Κ.Δ.Π. 268/2001; Κ.Δ.Π. 55/2004; Κ.Δ.Π. 295/2007; Κ.Δ.Π. 70/2012; Κ.Δ.Π. 16/2019 |
| CZE | Česká Republika | Nařízení vlády č. 246/2018 Sb. Nařízení vlády, kterým se mění nařízení vlády č. 361/2007 Sb., kterým se stanoví podmínky ochrany zdraví při práci, ve znění pozdějších předpisů |
| DEU | Deutschland | TRGS 900 - Seite 1 von 69 (Fassung 29.03.2019)- Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte |
| DNK | Danmark | Bekendtgørelse om grænseværdier for stoffer og materialer - BEK nr 1458 af 13/12/2019 |
| ESP | España | LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST) |
| EST | Eesti | Ohtlike kemikaalide ja neid sisaldavate materjalide kasutamise töötervishoiu ja tööohutuse nõuded ning töökeskkonna keemiliste ohutegurite piirnormid [RT I, 17.10.2019, 1 - jõust. 17.01.2020] |
| FRA | France | Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS |
| FIN | Suomi | HTP-VÄRDEN 2018. Koncentrationer som befunnits skadliga. SOCIAL- OCH HÄLSOVÄRDSMINISTERIETS PUBLIKATIONER 10/2018 |
| GRC | Ελλάδα | ΕΦΗΜΕΡΙΔΑ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ - ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 152 - 21 Αυγούστου 2018 |
| HUN | Magyarország | A pénzügyminiszter 7/2018. (VIII. 29.) PM rendelete a munkahelyek kémiai biztonságáról szóló 25/2000. (IX. 30.) EüM–SZCSM egyű, TTES rendelet módosításáról. |

| | | |
|-----|----------------|--|
| HRV | Hrvatska | Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 91/18) |
| ITA | Italia | Decreto Legislativo 9 Aprile 2008, n.81 |
| IRL | Éire | 2018 Code of Practice for the Chemical Agents Regulations Safety Authority |
| LUX | Luxembourg | Règlement grand-ducal du 20 juillet 2018 modifiant le règlement grand-ducal du 14 novembre 2016 concernant la protection de la sécurité et de la santé des salariés contre les risques liés à des agents chimiques sur le lieu de travail |
| LTU | Lietuva | LIETUVOS HIGIENOS NORMA HN 23:2011 „CHEMINIŲ MEDŽIAGŲ PROFESINIO POVEIKIO RIBINIAI DYDŽIAI. MATAVIMO IR POVEIKIO VERTINIMO BENDRIEJI REIKALAVIMAI. Nr. V-695/A1-272, 2018-06-12, paskelbta TAR 2018-06-15, i. k. 2018-09988 |
| LVA | Latvija | Ķīmisko vielu aroda ekspozīcijas robežvērtības (AER) darba vides gaisā 2018 |
| MLT | Malta | LEGAL NOTICE 227 of 2003, as amended by Legal Notices 353 of 2007, 53 of 2012, 198 of 2015 and 57 of 2018 |
| NOR | Norge | Fastsatt av Arbeids- og sosialdepartementet 21. august 2018 med hjemmel i lov 17. juni 2005 nr. 62 om arbeidsmiljø, arbeidstid, stillingsvern mv. (arbeidsmiljøloven) § 1-3, § 1-4 og § 4-5 |
| NLD | Nederland | Regeling van de Staatssecretaris van Sociale Zaken en Werkgelegenheid van 13 juli 2018, 2018-0000118517 tot wijziging van de Arbeidsomstandighedenregeling in verband met de implementatie van Richtlijn 2017/164 in Bijlage XIII |
| PRT | Portugal | Ministério da Economia e do Emprego Consolida as prescrições mínimas em matéria de protecção dos trabalhadores contra os riscos para a segurança e a saúde devido à exposição a agentes químicos no trabalho - Diário da República, 1.ª série - N.º 111 - 11 de junho de 2018 |
| POL | Polska | ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 12 czerwca 2018 r |
| ROU | România | HOTĂRÂRE nr. 584 din 2 august 2018 pentru modificarea Hotărârii Guvernului nr. 1.218/2006 privind stabilirea cerințelor minime de securitate și sănătate în muncă pentru asigurarea protecției lucrătorilor împotriva riscurilor legate de prezența agenților chimici |
| SWE | Sverige | Hygieniska gränsvärden, AFS 2018:1 |
| SVK | Slovensko | Nariadenie vlády č. 33/2018 Z. z. Nariadenie vlády Slovenskej republiky, ktorým sa mení a dopĺňa nariadenie vlády Slovenskej republiky č. 355/2006 Z. z. o ochrane zamestnancov pred rizikami súvisiacimi s expozíciou chemickým faktorom pri práci v znení neskorších predpisov |
| SVN | Slovenija | Uradni list Republike Slovenije 20.12.2019 - Uradnem listu RS št. 78/19 -PRAVILNIK o varovanju delavcev pred tveganji zaradi izpostavljenosti kemičnim snovem pri delu |
| TUR | Türkiye | 23.06.2017 tarihli, 30105 sayılı, KKDİK Ek II Yönetmelik hükümlerine uygun düzenlenmiştir |
| GBR | United Kingdom | EH40/2005 Workplace exposure limits (Third edition, published 2018) |
| EU | OEL EU | Direttiva (UE) 2019/1831; Direttiva (UE) 2019/130; Direttiva (UE) 2019/983; Direttiva (UE) 2017/2398; Direttiva (UE) 2017/164; Direttiva 2009/161/UE; Direttiva 2006/15/CE; Direttiva 2004/37/CE; Direttiva 2000/39/CE; Direttiva 98/24/CE; Direttiva 91/322/CEE. |
| | TLV-ACGIH | ACGIH 2019 |

CYCLOHEXANE
Threshold Limit Value

| Type | Country | TWA/8h | | STEL/15min | | Remarks / Observations |
|---------|---------|--------|-------|------------|-----|------------------------|
| | | mg/m3 | ppm | mg/m3 | ppm | |
| MAK | AUS | 700 | 200 | 2800 | 800 | |
| TRK | AUS | 700 | 200 | 2800 | 800 | |
| VLEP | BEL | 350 | 100 | | | |
| TLV | BGR | 700 | 200 | | | |
| MAK | CHE | 700 | 200 | 2800 | 800 | |
| VME/VLE | CHE | 700 | 200 | 2800 | 800 | |
| TLV | CZE | 700 | 200,2 | 2000 | 572 | |
| AGW | DEU | 700 | 200 | 2800 | 800 | |
| MAK | DEU | 700 | 200 | 2800 | 800 | |
| TLV | DNK | 172 | 50 | 344 | 100 | |
| VLA | ESP | 700 | 200 | | | |
| TLV | EST | 700 | 200 | | | |
| VLEP | FRA | 700 | 200 | | | |



CENTRO DISTRIBUZIONE UTENSILI SCPA

EN

ECC P250

Revision nr. 9
 Dated 23/10/2020
 Printed on 23/10/2020
 Page n. 6/17
 Replaced revision:8 (Dated: 19/08/2019)

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|-----------|-----|-----|-----|------|------|
| HTP | FIN | 350 | 100 | 875 | 250 |
| TLV | GRC | 700 | 200 | | |
| AK | HUN | 700 | | | |
| GVI/KGVI | HRV | 700 | 200 | | SKIN |
| VLEP | ITA | 350 | 100 | | |
| OELV | IRL | 700 | 200 | | |
| VL | LUX | 700 | 200 | | |
| RD | LTU | 700 | 200 | | |
| RV | LVA | 80 | 23 | | |
| TLV | MLT | 700 | 200 | | |
| TLV | NOR | 525 | 150 | | |
| TGG | NLD | 700 | | 1400 | |
| VLE | PRT | 700 | 200 | | |
| NDS/NDSch | POL | 300 | | 1000 | |
| TLV | ROU | 700 | 200 | | |
| NGV/KGV | SWE | 700 | 200 | | |
| NPEL | SVK | 700 | 200 | | |
| MV | SVN | 700 | 200 | 2800 | 800 |
| ESD | TUR | 700 | 200 | | |
| WEL | GBR | 350 | 100 | 1050 | 300 |
| OEL | EU | 700 | 200 | | |
| TLV-ACGIH | | | 100 | | |

Predicted no-effect concentration - PNEC

| | | |
|--|-------|-------|
| Normal value in fresh water | 0,207 | mg/l |
| Normal value in marine water | 0,207 | mg/l |
| Normal value for fresh water sediment | 16,68 | mg/kg |
| Normal value for marine water sediment | 16,68 | mg/kg |
| Normal value for water, intermittent release | 0,207 | mg/l |
| Normal value of STP microorganisms | 3,24 | mg/l |
| Normal value for the terrestrial compartment | 3,38 | mg/kg |

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 | | | | 59,4 mg/kg | | | | |
| Inhalation | 412 mg/m3 | 412 mg/m3 | 206 mg/m3 | 206 mg/m3 | 1400 mg/m3 | 1400 mg/m3 | 700 mg/m3 | 700 mg/m3 |
| Skin | | | | 1186 mg/kg | | | | 2016 mg/kg |

PROPANE

Threshold Limit Value

| Type | Country | TWA/8h | STEL/15min | Remarks / Observations | | |
|------|---------|--------|------------|------------------------|------|--------------------------------|
| | | mg/m3 | ppm | | | |
| | | | mg/m3 | | | |
| | | | ppm | | | |
| MAK | AUS | 1800 | 1000 | 3600 | 2000 | STEL:60(Mow),Häufigkeit/Sch:3x |
| TRK | AUS | 1800 | 1000 | 3600 | 2000 | |



CENTRO DISTRIBUZIONE UTENSILI SCPA

Revision nr. 9
 Dated 23/10/2020
 Printed on 23/10/2020
 Page n. 7/17
 Replaced revision:8 (Dated: 19/08/2019)

EN

ECC P250

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|-----------|-----|------|------|------|------|
| VLEP | BEL | | 1000 | | |
| TLV | BGR | 1800 | | | |
| MAK | CHE | 1800 | 1000 | 7200 | 4000 |
| VME/VLE | CHE | 1800 | 1000 | 7200 | 4000 |
| AGW | DEU | 1800 | 1000 | 7200 | 4000 |
| MAK | DEU | 1800 | 1000 | 7200 | 4000 |
| TLV | DNK | 1800 | 1000 | 3600 | 2000 |
| VLA | ESP | | 1000 | | |
| TLV | EST | 1800 | 1000 | | |
| HTP | FIN | 1500 | 800 | 2000 | 1100 |
| TLV | GRC | 1800 | 1000 | | |
| RV | LVA | 1800 | 100 | | |
| TLV | NOR | 900 | 500 | | |
| NDS/NDSch | POL | 1800 | | | |
| TLV | ROU | 1400 | 778 | 1800 | 1000 |
| MV | SVN | 1800 | 1000 | 7200 | 4000 |

BUTANE

| Threshold Limit Value | | | | | | |
|-----------------------|---------|--------|------|------------|------|--------------------------------|
| Type | Country | TWA/8h | | STEL/15min | | Remarks / Observations |
| | | mg/m3 | ppm | mg/m3 | ppm | |
| MAK | AUS | 1900 | 800 | 3800 | 1600 | STEL:60(Mow),Häufigkeit/Sch:3x |
| TRK | AUS | 1600 | 800 | 3800 | 1600 | |
| VLEP | BEL | | | 2370 | 980 | |
| TLV | BGR | 1900 | | | | |
| MAK | CHE | 1900 | 800 | | | |
| VME/VLE | CHE | 1900 | 800 | | | |
| AGW | DEU | 2400 | 1000 | 9600 | 4000 | |
| MAK | DEU | 2400 | 1000 | 9600 | 4000 | |
| TLV | DNK | 1200 | 500 | 2400 | 1000 | |
| VLA | ESP | 1935 | 800 | | | |
| TLV | EST | 4 | | | | peentolm |
| VLEP | FRA | 1900 | 800 | | | |
| HTP | FIN | 1900 | 800 | 2400 | 1000 | |
| TLV | GRC | 2350 | 1000 | | | |
| AK | HUN | 2350 | | 9400 | | |
| GVI/KGVI | HRV | 1450 | 600 | 1810 | 750 | |
| RV | LVA | 300 | | | | |
| TLV | NOR | 600 | 250 | | | |
| TGG | NLD | 1430 | | | | |
| NDS/NDSch | POL | 1900 | | 3000 | | |
| MV | SVN | 2400 | 1000 | 9600 | 4000 | |
| WEL | GBR | 1450 | 600 | 1810 | 750 | |

**CENTRO DISTRIBUZIONE UTENSILI SCPA**

Revision nr. 9

EN

Dated 23/10/2020

ECC P250

Printed on 23/10/2020

Page n. 8/17

Replaced revision:8 (Dated: 19/08/2019)

| | | | |
|-----------|-----|---|------|
| WEL | GBR | 4 | RESP |
| TLV-ACGIH | | | 1000 |

ETHYL ACETATE**Threshold Limit Value**

| Type | Country | TWA/8h | | STEL/15min | | Remarks / Observations |
|-----------|---------|--------|-------|------------|---------|------------------------|
| | | mg/m3 | ppm | mg/m3 | ppm | |
| MAK | AUS | 734 | 200 | 1468 | 400 | |
| TRK | AUS | 734 | 200 | 1460 | 400 | |
| VLEP | BEL | 734 | 200 | 1468 | 400 | |
| TLV | BGR | 734 | 200 | 1468 | 400 | |
| MAK | CHE | 730 | 200 | 1470 | 400 | |
| VME/VLE | CHE | 730 | 200 | 1470 | 400 | |
| TLV | CYP | 734 | 200 | 1468 | 400 | |
| TLV | CZE | 700 | 191,1 | 900 | 245,7 | |
| AGW | DEU | 730 | 200 | 1460 | 400 | |
| MAK | DEU | 750 | 200 | 1500 | 400 | |
| TLV | DNK | 540 | 150 | 1080 | 300 | |
| VLA | ESP | 734 | 200 | 1460 | 400 | |
| TLV | EST | 500 | 150 | 1100 | 300 | |
| VLEP | FRA | 734 | 200 | 1468 | 400 | |
| HTP | FIN | 730 | 200 | 1470 | 400 | |
| TLV | GRC | 734 | 200 | 1468 | 400 | |
| AK | HUN | 1400 | | 1400 | | |
| GVI/KGVI | HRV | 1400 | | 1400 | | |
| OELV | IRL | 734 | 200 | 1468 | 400 | |
| VL | LUX | 734 | 200 | 1468 | 400 | |
| RD | LTU | 500 | 150 | 1100 (C) | 300 (C) | |
| RV | LVA | 200 | 54 | 1468 | 400 | |
| TLV | MLT | 734 | 200 | 1468 | 400 | |
| TLV | NOR | 734 | 200 | | | |
| TGG | NLD | 734 | | 1468 | | |
| VLE | PRT | 734 | 200 | 1468 | 400 | |
| NDS/NDSch | POL | 734 | | 1468 | | |
| TLV | ROU | 400 | 111 | 500 | 139 | |
| NGV/KGV | SWE | 550 | 150 | 1100 | 300 | |
| NPEL | SVK | 734 | 200 | 1468 | 400 | |
| MV | SVN | 734 | 200 | 1468 | 400 | |
| WEL | GBR | 734 | 200 | 1468 | 400 | |
| OEL | EU | 734 | 200 | 1468 | 400 | |
| TLV-ACGIH | | | 400 | | | |

Predicted no-effect concentration - PNEC

Normal value in fresh water 0,24 mg/l



| | | |
|---|-------|---------|
| Normal value in marine water | 0,024 | mg/l |
| Normal value for fresh water sediment | 1,15 | mg/kg/d |
| Normal value for marine water sediment | 0,115 | mg/kg/d |
| Normal value for water, intermittent release | 1,65 | mg/l |
| Normal value of STP microorganisms | 650 | mg/l |
| Normal value for the food chain (secondary poisoning) | 200 | mg/kg |
| Normal value for the terrestrial compartment | 0,148 | 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 | | | | 4,5 mg/kg bw/d | | | | |
| Inhalation | 734 mg/m3 | 734 mg/m3 | 367 mg/m3 | 367 mg/m3 | 1468 mg/m3 | 1468 mg/m3 | 734 mg/m3 | 734 mg/m3 |
| Skin | | | | 37 mg/kg bw/d | | | | 63 mg/kg bw/d |

ISOBUTANE**Threshold Limit Value**

| Type | Country | TWA/8h | STEL/15min | Remarks / Observations |
|-----------|---------|--------|------------|------------------------|
| | | mg/m3 | ppm | |
| VLEP | BEL | | 2370 | 980 |
| MAK | CHE | 1900 | 800 | |
| VME/VLE | CHE | 1900 | 800 | |
| AGW | DEU | 2400 | 1000 | 9600 4000 |
| MAK | DEU | 2400 | 1000 | 9600 4000 |
| HTP | FIN | 1900 | 800 | 2400 1000 |
| OELV | IRL | | | 1000 |
| TLV-ACGIH | | | | 1000 |

Legend:

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

8.2. Exposure controls

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

None required.

SKIN PROTECTION

Wear category II 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 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, a mask with a type AX filter combined with a type P filter should be worn (see standard EN 14387).

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.

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

| | |
|--|--|
| Appearance | aerosol |
| Colour | colourless |
| Odour | characteristic of solvent |
| Odour threshold | Not available |
| pH | Not applicable |
| Melting point / freezing point | Not available |
| Initial boiling point | Not available |
| Boiling range | Not available |
| Flash point | < 0 °C |
| Evaporation Rate | Not available |
| Flammability of solids and gases | Not available |
| Lower inflammability limit | Not available |
| Upper inflammability limit | Not available |
| Lower explosive limit | Not available |
| Upper explosive limit | Not available |
| Vapour pressure | Not available |
| Vapour density | Not available |
| Relative density | Not available |
| Solubility | in water: insoluble; in acetone: soluble |
| Partition coefficient: n-octanol/water | Not available |
| Auto-ignition temperature | Not available |
| Decomposition temperature | Not available |
| Viscosity | Not available |
| Explosive properties | Not available |
| Oxidising properties | Not available |

9.2. Other information

| | |
|----------------------------------|--------------------------|
| VOC (Directive 2010/75/EC) : | 99,96 % - 683,75 g/litre |
| Propellant flammability | extremely flammable |
| Limit of propellant flammability | 1,8-9,5% |

SECTION 10. Stability and reactivity

10.1. Reactivity

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

ETHYL ACETATE

It slowly decomposes to acetic acid and ethanol by the action of light, air and water.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

ETHYL ACETATE

Avoid exposure to: light, moisture, air.

**10.3. Possibility of hazardous reactions**

No hazardous reactions are foreseeable in normal conditions of use and storage.

CYCLOHEXANE

May react with: oxidising substances.

ETHYL ACETATE

May react violently with: strong oxidising agents, acids.

10.4. Conditions to avoid

Avoid overheating.

CYCLOHEXANE

Avoid exposure to: naked flames, sparks, sources of ignition, electrostatic charges.

ETHYL ACETATE

Avoid exposure to: heat, naked flames, sparks, sources of ignition, electrostatic charges.

10.5. Incompatible materials

Strong reducing or oxidising agents, strong acids or alkalis, hot material.

CYCLOHEXANE

Incompatible with: oxidising agents.

ETHYL ACETATE

Incompatible with: oxidising agents, strong acids, strong bases, peroxides.

10.6. Hazardous decomposition products

CYCLOHEXANE

May develop: carbon oxides.

ETHYL ACETATE

In decomposition develops: carbon oxides, vapors of acetic acid, ethanol.

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 toxicological effectsMetabolism, toxicokinetics, mechanism of action and other information

Information not available.

Information on likely routes of exposure

CYCLOHEXANE

WORKERS: inhalation; contact with the skin.

POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

CYCLOHEXANE

Irritating for the skin and mucous membranes, and may be absorbed by the skin; nerve damage can occur at high doses and is largely due to the cyclohexanone, its metabolite.

Interactive effects

CYCLOHEXANE

The substance may enhance the effects of agents such as tri-ortho-cresyl phosphate (TOCP).

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)

CYCLOHEXANE
LD50 (Oral) > 5000 mg/kg Rat
LD50 (Dermal) > 2000 mg/kg Rabbit
LC50 (Inhalation) > 32880 mg/m³/4h Rat

ETHYL ACETATE
LD50 (Oral) 4934 mg/kg bw Rabbit (OECD 401)
LD50 (Dermal) > 20000 mg/kg bw Male rabbit
LC50 (Inhalation) > 22,5 mg/l/6h Rat

SKIN CORROSION / IRRITATION

Causes skin irritation.

SERIOUS EYE DAMAGE / IRRITATION

Causes serious eye irritation.

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

May cause drowsiness or dizziness.

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class.

ASPIRATION HAZARD

Toxic for aspiration.

SECTION 12. Ecological information

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

12.1. Toxicity

CYCLOHEXANE

LC50 - for Fish 4,53 mg/l/96h Pimephales promelas (OECD 203)
EC50 - for Crustacea 0,9 mg/l/48h Daphnia magna (OECD 202)
EC50 - for Algae / Aquatic Plants 3,4 mg/l/72h Selenastrum capricornutum

ETHYL ACETATE

LC50 - for Fish 230 mg/l/96h Pimephales promelas
EC50 - for Crustacea 165 mg/l/48h Daphnia magna



Chronic NOEC for Crustacea

2,4 mg/l 21d - Daphnia magna

12.2. Persistence and degradability

BUTANE

Rapidly degradable

PROPANE

Rapidly degradable

CYCLOHEXANE

Solubility in water

Insoluble

Rapidly degradable

ETHYL ACETATE

Solubility in water

> 10000 mg/l

Rapidly degradable

69% - 20d in water

12.3. Bioaccumulative potential

CYCLOHEXANE

Partition coefficient: n-octanol/water

3,44 Log Kow

ETHYL ACETATE

Partition coefficient: n-octanol/water

0,68 Log Kow 25° C

BCF

30 - 3d - Leuciscus idus

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. 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**

ADR / RID, IMDG, IATA: 1950

14.2. UN proper shipping name

ADR / RID: AEROSOLS
 IMDG: AEROSOLS (CYCLOHEXANE)
 IATA: AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es)

ADR / RID: Class: 2 Label: 2.1
 IMDG: Class: 2 Label: 2.1
 IATA: Class: 2 Label: 2.1

**14.4. Packing group**

ADR / RID, IMDG, IATA: -

14.5. Environmental hazards

ADR / RID: Environmentally Hazardous
 IMDG: Marine Pollutant
 IATA: NO



For Air transport, environmentally hazardous mark is only mandatory for UN 3077 and UN 3082.

14.6. Special precautions for user

| | | | |
|------------|-----------------------|--------------------------|------------------------------|
| ADR / RID: | HIN - Kemler: -- | Limited Quantities: 1 L | Tunnel restriction code: (D) |
| | Special Provision: - | | |
| IMDG: | EMS: F-D, S-U | Limited Quantities: 1 L | |
| IATA: | Cargo: | Maximum quantity: 150 Kg | Packaging instructions: 203 |
| | Pass.: | Maximum quantity: 75 Kg | Packaging instructions: 203 |
| | Special Instructions: | A145, A167, A802 | |

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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: P3a-E1.

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

Product



Point 40

Contained substance

Point 57 CYCLOHEXANE Reg. no.: 01-2119463273-41

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 (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls

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

Regulation (EC) No. 648/2004

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

German regulation on the classification of substances hazardous to water (AwSV, vom 18. April 2017)

WGK 2: Hazard to waters.

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the mixture.

SECTION 16. Other information

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

| | |
|--------------------------|--|
| Flam. Gas 1A | Flammable gas, category 1A |
| Aerosol 1 | Aerosol, category 1 |
| Aerosol 3 | Aerosol, category 3 |
| Flam. Liq. 2 | Flammable liquid, category 2 |
| Press. Gas (Liq.) | Liquefied gas |
| Asp. Tox. 1 | Aspiration hazard, category 1 |
| Eye Irrit. 2 | Eye irritation, category 2 |
| Skin Irrit. 2 | Skin irritation, category 2 |
| STOT SE 3 | Specific target organ toxicity - single exposure, category 3 |
| Aquatic Acute 1 | Hazardous to the aquatic environment, acute toxicity, category 1 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment, chronic toxicity, category 1 |
| H220 | Extremely flammable gas. |
| H222 | Extremely flammable aerosol. |
| H229 | Pressurised container: may burst if heated. |
| H225 | Highly flammable liquid and vapour. |
| H280 | Contains gas under pressure; may burst if heated. |



| | |
|--------|---|
| H304 | May be fatal if swallowed and enters airways. |
| H319 | Causes serious eye irritation. |
| H315 | Causes skin irritation. |
| H336 | May cause drowsiness or dizziness. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- 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).

Classification and procedure used to derive it in accordance with Regulation (EC) 1272/2008 (CLP) in relation to mixtures:

| Classification according to Regulation (EC) No. 1272/2008 | Classification procedure |
|---|--------------------------|
| Aerosol, 1 H222+H229 | Calculation method |
| Asp. Tox. 1 H304 | Calculation method |
| Eye Irrit. 2 H319 | Calculation method |
| Skin Irrit. 2 H315 | Calculation method |
| STOT SE 3 H336 | Calculation method |
| Aquatic Acute 1 H400 | Calculation method |
| Aquatic Chronic 1 H410 | Calculation method |

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) 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)
- 14. Regulation (EU) 2018/669 (XI Atp. CLP)
- 15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
- 16. Regulation (EU) 2019/521 (XII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 07 / 08 / 09 / 10 / 11 / 12 / 15 / 16.