



# SAFETY DATA SHEET

URETHAN

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Compilation date: 31.07.2016

Revision No: 1

## Section 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Product name:** URETHAN

**Product code:** 771.400.000

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

**Use of substance / mixture:** Lacquer

### 1.3. Details of the supplier of the safety data sheet

**Company name:** ECS AG

Roosstrasse 53

CH-8832 Wollerau

Switzerland

**Tel:** +41 (0)44 / 787 53 56

**Email:** gunnar.kleinmann@ecsag.com

### 1.4. Emergency telephone number

**Emergency tel:** Germany: Intoxications Information Center; +49 761 19240

Switzerland: Swiss Toxicological Information Centre; +41 44 251 51 51

Austria: Intoxication information center; +43 1 406 43 43

## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification under CLP:** Flam. Aerosol 1: H222; STOT RE 2: H373; Aquatic Chronic 2: H411; STOT SE 3: H336;  
Asp. Tox. 1: H304; Skin Irrit. 2: H315; -: H229

**Most important adverse effects:** Extremely flammable aerosol. Pressurised container: May burst if heated. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects. Causes skin irritation. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways.

### 2.2. Label elements

**Label elements:**

**Hazard statements:** H222: Extremely flammable aerosol.

H229: Pressurised container: May burst if heated

H373: May cause damage to organs through prolonged or repeated exposure.

H411: Toxic to aquatic life with long lasting effects.

H315: Causes skin irritation.

H336: May cause drowsiness or dizziness.

H304: May be fatal if swallowed and enters airways.

[cont...]

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**Hazard pictograms:** GHS02: Flame  
GHS08: Health hazard  
GHS09: Environmental  
GHS07: Exclamation mark



**Signal words:** Danger

**Precautionary statements:** P102: Keep out of reach of children.  
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P211: Do not spray on an open flame or other ignition source.  
P251: Do not pierce or burn, even after use.  
P260: Do not breathe dust/fumes/gas/mist/vapours/spray.  
P271: Use only outdoors or in a well-ventilated area.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P302+352: IF ON SKIN: Wash with plenty of water/.  
P410+412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C.  
P501: Dispose of contents/container to.

## 2.3. Other hazards

**Other hazards:** In use, may form flammable / explosive vapour-air mixture.

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous ingredients:

BUTANE

EINECS	CAS	PBT / WEL	CLP Classification	Percent
203-448-7	106-97-8	Substance with a Community workplace exposure limit.	Flam. Gas 1: H220; Press. Gas: H280	30-50%

KOHLENWASSERSTOFFE, C6, ISOALKANE, <5%N-HEXAN - REACH registered number(s): 01-2119484651-34

931-254-9	-	-	Flam. Liq. 2: H225; Asp. Tox. 1: H304; Aquatic Chronic 2: H411; Skin Irrit. 2: H315; STOT SE 3: H336	10-30%
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[cont...]

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## PROPANE

200-827-9	74-98-6	Substance with a Community workplace exposure limit.	Flam. Gas 1: H220; Press. Gas: H280	10-30%
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KOHLENWASSERSTOFFE, C7-C9, N-ALKANE, ISO-ALKANE, CYCLISCHE - REACH registered number(s): 01-2119473851-33

-	-	-	Flam. Liq. 2: H225; Asp. Tox. 1: H304; Aquatic Chronic 2: H411; STOT SE 3: H336	1-5%
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KOHLENWASSERSTOFFE, C9-C12, N-ALKANE, ISO-ALKANE, CYCLISCHE VERBINDUNGEN, AROMATEN (2-25%) - REACH registered number(s): 01-2119458049-33

-	-	-	Flam. Liq. 3: H226; STOT RE 1: H372; Asp. Tox. 1: H304; Aquatic Chronic 2: H411; STOT SE 3: H336	1-5%
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## ISOBUTANE

200-857-2	75-28-5	Substance with a Community workplace exposure limit.	Flam. Gas 1: H220; Press. Gas: H280	1-5%
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## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Wash immediately with plenty of soap and water. Remove all contaminated clothes and footwear immediately unless stuck to skin.

**Eye contact:** Rinse opened eye for several minutes under running water.

**Ingestion:** If symptoms persist consult doctor.

**Inhalation:** In case of unconsciousness place patient stably in side position for transportation.

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

**Skin contact:** Causes skin irritation.

**Eye contact:** Based on available data, the classification criteria are not met.

**Ingestion:** May be fatal if swallowed and enters airways.

**Inhalation:** May cause drowsiness or dizziness.

**Delayed / immediate effects:** May cause damage to organs through prolonged or repeated exposure.

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

**Immediate / special treatment:** Symptoms of poisoning may even occur after several hours, therefore medical observation for at least 48 hours after the accident.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Carbon dioxide. Dry chemical powder. Water spray. Fight Larger fires with water spray or alcohol resistant foam.

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## 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** During heating or in case of fire poisonous gases are produced.

## 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Protective equipment: Mouth respiratory protective device. Additional information: Collect contaminated fire fighting water separately. It must not enter the sewage system.

## Section 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Mouth respiratory protective device Wear protective equipment. Keep unprotected persons away.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/surface or ground water.

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS. Refer to section 13 of SDS. Safe handling: see section 7

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Ensure good ventilation/exhaustion at the workplace. Keep ignition sources away - Do not smoke. Keep respiratory protective device available. Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use. Do not spray into a naked flame or any incandescent material.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Observe official regulations on storing packagings with pressurised containers. Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use. Storage class: 2B

### 7.3. Specific end use(s)

**Specific end use(s):** No further relevant information available.

## Section 8: Exposure controls/personal protection

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## 8.1. Control parameters

**Hazardous ingredients:**

**BUTANE**

**Workplace exposure limits:**

**Respirable dust**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	1450 mg/m <sup>3</sup>	1810 mg/m <sup>3</sup>	-	-

**PROPANE**

UK	1800 mg/m <sup>3</sup>	7200 mg/m <sup>3</sup>	-	-
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**ISOBUTANE**

UK	2400 mg/m <sup>3</sup>	9600 mg/m <sup>3</sup>	-	-
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## DNEL/PNEC Values

**DNEL / PNEC** No data available.

## 8.2. Exposure controls

**Engineering measures:** Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes. Avoid contact with the eyes and skin.

**Respiratory protection:** In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. Short term filter device: Filter A/P2

**Hand protection:** Protective gloves. The glove material has to be impermeable and resistant to the product / the substance / the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. Nitrile gloves. Recommended thickness of the material:  $\geq 0,55$  mm Penetration time of glove material: Value for the permeation: Level  $\leq 6$  Penetration time of glove material: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Tightly fitting safety goggles.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Aerosol

**Colour:** According to product specification

**Odour:** Characteristic odour

**Solubility in water:** Not miscible or difficult to mix.

**Boiling point/range°C:** not applicable

**Melting point/range°C:** Undetermined

**Flammability limits %: lower:** 1,0 Vol%

**upper:** 10,9 Vol%

**Flash point°C:** -60°C

**Autoflammability°C:**  $>200^{\circ}\text{C}$

**Vapour pressure:** at 20°C: 4000hPa

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Relative density: not determined

pH: not applicable

VOC g/l: 77,9 %

## 9.2. Other information

**Other information:** Product is not explosive. However, formation of explosive air / vapour mixtures are possible. Product is not selfigniting. Density at 20°C: 0,65 g/cm<sup>3</sup>

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** No further relevant information available.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** No dangerous reactions known.

### 10.4. Conditions to avoid

**Conditions to avoid:** No further relevant information available.

### 10.5. Incompatible materials

**Materials to avoid:** No further relevant information available.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** No dangerous decomposition products known.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Hazardous ingredients:

#### KOHLWASSERSTOFFE, C<sub>6</sub>, ISOALKANE, <5%N-HEXAN

DERMAL	RAT	1H LC50	>3000	mg/kg
GASES	RAT	4H LC50	>20	mg/l
ORAL	RAT	LD50	>5000	mg/kg

#### KOHLWASSERSTOFFE, C<sub>9</sub>-C<sub>12</sub>, N-ALKANE, ISO-ALKANE, CYCLISCHE VERBINDUNGEN, AROMATEN (2-25%)

ORAL	RAT	LD50	>15000	mg/kg
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#### Relevant hazards for product:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Hazardous: calculated
STOT-single exposure	-	Hazardous: calculated

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STOT-repeated exposure	-	Hazardous: calculated
Aspiration hazard	-	Hazardous: calculated

## Symptoms / routes of exposure

**Skin contact:** Causes skin irritation.

**Eye contact:** Based on available data, the classification criteria are not met.

**Ingestion:** May be fatal if swallowed and enters airways.

**Inhalation:** May cause drowsiness or dizziness.

**Delayed / immediate effects:** May cause damage to organs through prolonged or repeated exposure.

## Section 12: Ecological information

### 12.1. Toxicity

**Hazardous ingredients:**

**KOHLLENWASSERSTOFFE, C6, ISOALKANE, <5%N-HEXAN**

Daphnia magna	LC50/48h	3,87	mg/l
Oryzias latipes	LC50/48h	>1	mg/l

### 12.2. Persistence and degradability

**Persistence and degradability:** No further relevant information available.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No further relevant information available.

### 12.4. Mobility in soil

**Mobility:** No further relevant information available.

### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

### 12.6. Other adverse effects

**Other adverse effects:** Toxic for fish Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground. Also poisonous for fish and plankton in water bodies. Toxic for aquatic organisms.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**Waste code number:** 15 01 10

**Disposal of packaging:** 15 01 04 metallic packaging Recommendation: Disposal must be made according to official regulations.

[cont...]

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**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

### 14.1. UN number

**UN number:** UN1950

### 14.2. UN proper shipping name

**Shipping name:** AEROSOLS, ENVIRONMENTALLY HAZARDOUS  
(KOHLENWASSERSTOFFE, C6, ISOALKANE, <5%N-HEXAN)

### 14.3. Transport hazard class(es)

**Transport class:** 2 (5F+Gases)

### 14.4. Packing group

**Packing group:** entfällt

### 14.5. Environmental hazards

**Environmentally hazardous:** Yes

**Marine pollutant:** No

### 14.6. Special precautions for user

**Special precautions:** EMS Number: F-D,S-U Stowage Code: SW1, SW22 Segregation Code: SG69 Product contains environmentally hazardous substances:  
cobalt bis (2-ethylhexanoate)

**Tunnel code:** D

**Transport category:** 2

**IMDG seg. group:** LQ: 1L; EQ: E0

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

**Transport in bulk:** Not applicable.

## Section 15: Regulatory information

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

**Specific regulations:** Directive 2012/18/EU Named dangerous substances - ANNEX 1 None of the ingredients is listed. Seveso category:  
P3a FLAMMABLE AEROSOLS  
E2 Hazardous to the Aquatic Environment Qualifying quantity (tonnes) for application of lower-tier requirements 150 t. Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t.

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

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## Section 16: Other information

### Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and s.3:** H220: Extremely flammable gas.  
H222: Extremely flammable aerosol.  
H225: Highly flammable liquid and vapour.  
H226: Flammable liquid and vapour.  
H229: Pressurised container: May burst if heated  
H304: May be fatal if swallowed and enters airways.  
H315: Causes skin irritation.  
H336: May cause drowsiness or dizziness.  
H372: Causes damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.  
H373: May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.  
H411: Toxic to aquatic life with long lasting effects.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.