



**Safety Data Sheet dated 22/6/2016, version 3**  
**This version cancels and substitutes any previous version**

---

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

1.1. Product identifier

Mixture identification:

Trade name: CHISEL

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

Recommended use:

Condenser Cleaner with Anticorrosion Power

1.3. Details of the supplier of the safety data sheet

Company:

ERRECOM SRL

Via Industriale, 14

Corzano (BS) Italy

Tel. +39 030/9719096

Competent person responsible for the safety data sheet:

lab@errecom.it

1.4. Emergency telephone number


+39 02-6610-1029 Poison Control Center Niguarda Ca' Granda - Milano - ITALY

---

## **SECTION 2: Hazards identification**

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

 Warning, Skin Irrit. 2, Causes skin irritation.

 Danger, Eye Dam. 1, Causes serious eye damage.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H315 Causes skin irritation.

H318 Causes serious eye damage.

Precautionary statements:

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P363 Wash contaminated clothing before reuse.

Special Provisions:

None

Contents

Undecan-1-ol, ethoxylated  
potassium hydroxide

# Safety Data Sheet

## CHISEL

1,2-benzisothiazol-3(2H)-one: May produce an allergic reaction.

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards





















### SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.







3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 1% - < 3%	sodium N-(2-carboxyethyl)-N-[ 3-(decyloxy)propyl]-β-a laninate	CAS: 64972-19-6 EC: 265-295-2	 3.3/2 Eye Irrit. 2 H319 4.1/C3 Aquatic Chronic 3 H412
>= 1% - < 3%	sodium silicate	CAS: 1344-09-8 EC: 215-687-4 REACH No.: 01-21194487 25-31	 3.2/2 Skin Irrit. 2 H315  3.3/2 Eye Irrit. 2 H319
>= 1% - < 3%	potassium hydroxide; caustic potash	Index number: CAS: 1310-58-3 EC: 215-181-3	 3.2/1A Skin Corr. 1A H314  3.1/4/Oral Acute Tox. 4 H302
>= 1% - < 3%	Undecan-1-ol, ethoxylated	CAS: 34398-01-1 EC: 500-084-3	 3.1/4/Oral Acute Tox. 4 H302  3.3/1 Eye Dam. 1 H318
>= 0.25% - < 0.5%	sodium hydroxide; caustic soda	Index number: CAS: 1310-73-2 EC: 215-185-5	 3.2/1A Skin Corr. 1A H314
300 ppm	2-aminoethanol; ethanolamine	Index number: CAS: 141-43-5 EC: 205-483-3	 3.2/1B Skin Corr. 1B H314  3.1/4/Oral Acute Tox. 4 H302  3.1/4/Dermal Acute Tox. 4 H312  3.1/4/Inhal Acute Tox. 4 H332
300 ppm	propan-2-ol; isopropyl alcohol; isopropanol	Index number: CAS: 67-63-0 EC: 200-661-7 REACH No.: 01-21194575 58-25-XXXX	 2.6/2 Flam. Liq. 2 H225  3.3/2 Eye Irrit. 2 H319  3.8/3 STOT SE 3 H336
300 ppm	prop-2-yn-1-ol; propargyl alcohol	Index number: CAS: 107-19-7 EC: 203-471-2	 2.6/3 Flam. Liq. 3 H226  3.2/1B Skin Corr. 1B H314  4.1/C2 Aquatic Chronic 2 H411  3.1/3/Oral Acute Tox. 3 H301  3.1/3/Dermal Acute Tox. 3 H311

# Safety Data Sheet

## CHISEL

			 3.1/3/Inhal Acute Tox. 3 H331
200 ppm	1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one	Index number: 613-088-00-6 CAS: 2634-33-5 EC: 220-120-9	 3.2/2 Skin Irrit. 2 H315  3.3/1 Eye Dam. 1 H318  3.4.2/1-1A-1B Skin Sens. 1,1A,1B H317  4.1/A1 Aquatic Acute 1 H400  3.1/4/Oral Acute Tox. 4 H302

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

None

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:

None in particular.

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

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

#### 5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

### SECTION 6: Accidental release measures

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

# Safety Data Sheet

## CHISEL

Wear personal protection equipment.  
Remove all sources of ignition.  
Remove persons to safety.  
See protective measures under point 7 and 8.

### 6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.  
Retain contaminated washing water and dispose it.  
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

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

Wash with plenty of water.

### 6.4. Reference to other sections

See also section 8 and 13

---

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.  
Don't use empty container before they have been cleaned.  
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.  
Contaminated clothing should be changed before entering eating areas.  
Do not eat or drink while working.  
See also section 8 for recommended protective equipment.

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

Keep away from food, drink and feed.  
Incompatible materials:  
None in particular.  
Instructions as regards storage premises:  
Adequately ventilated premises.

### 7.3. Specific end use(s)

None in particular

---

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

potassium hydroxide; caustic potash - CAS: 1310-58-3  
TLV STEL - C 0,87 ppm - C 2 mg/m<sup>3</sup>  
sodium hydroxide; caustic soda - CAS: 1310-73-2  
TLV STEL - C 1,22 ppm - C 2 mg/m<sup>3</sup>  
2-aminoethanol; ethanolamine - CAS: 141-43-5  
TLV TWA - 3 ppm - 7,49 mg/m<sup>3</sup>  
TLV STEL - 6 ppm - 14,99 mg/m<sup>3</sup>  
propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0  
TLV TWA - 200 ppm, A4 - 491,53 mg/m<sup>3</sup>, A4  
TLV STEL - 400 ppm, A4 - 983,07 mg/m<sup>3</sup>, A4  
prop-2-yn-1-ol; propargyl alcohol - CAS: 107-19-7  
TLV TWA - 1 ppm - 2,29 mg/m<sup>3</sup> Skin  
TLV STEL - Skin

DNEL Exposure Limit Values

N.A.

PNEC Exposure Limit Values

N.A.

### 8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

# Safety Data Sheet

## CHISEL

### Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

### Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

### Respiratory protection:

Not needed for normal use.

### Thermal Hazards:

None

### Environmental exposure controls:

None

### Appropriate engineering controls:

None

---

## SECTION 9: Physical and chemical properties

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

Appearance and colour:	liquid orange
Odour:	characteristic
Odour threshold:	N.A.
pH:	N.A.
Melting point / freezing point:	N.A.
Initial boiling point and boiling range:	N.A.
Solid/gas flammability:	N.A.
Upper/lower flammability or explosive limits:	N.A.
Vapour density:	N.A.
Flash point:	N.A.
Evaporation rate:	N.A.
Vapour pressure:	N.A.
Relative density:	1.03 g/ml @ 20°C
Solubility in water:	N.A.
Solubility in oil:	N.A.
Partition coefficient (n-octanol/water):	N.A.
Auto-ignition temperature:	N.A.
Decomposition temperature:	N.A.
Viscosity:	N.A.
Explosive properties:	N.A.
Oxidizing properties:	N.A.

### 9.2. Other information

Miscibility:	N.A.
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant properties	N.A.
V.O.C. (w/w):	N.A.

---

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under normal conditions

### 10.2. Chemical stability

Stable under normal conditions

### 10.3. Possibility of hazardous reactions

None

### 10.4. Conditions to avoid

Stable under normal conditions.

### 10.5. Incompatible materials

# Safety Data Sheet

## CHISEL

None in particular.

- 10.6. Hazardous decomposition products  
None.

---

### SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the mixture:

N.A.

Toxicological information of the main substances found in the mixture:

Undecan-1-ol, ethoxylated - CAS: 34398-01-1

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 300 mg/kg

b) skin corrosion/irritation:

Test: Skin Irritant - Species: Rabbit Negative - Duration: 4h - Notes: not irritant

Test: Respiratory Tract Irritant Positive - Notes: possible irritation of the respiratory tract

c) serious eye damage/irritation:

Test: Eye Irritant - Species: Rabbit Positive - Notes: irritant

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

---

### SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Undecan-1-ol, ethoxylated - CAS: 34398-01-1

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Fish 1 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia 1 mg/l - Duration h: 48

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None

---

### SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

---

### SECTION 14: Transport information

CHISEL/3

Page n. 6 of 9

# Safety Data Sheet

## CHISEL

- 14.1. UN number  
Not classified as dangerous in the meaning of transport regulations.
- 14.2. UN proper shipping name  
N.A.
- 14.3. Transport hazard class(es)  
N.A.
- 14.4. Packing group  
N.A.
- 14.5. Environmental hazards  
ADR-Environmental Pollutant: No  
IMDG-Marine pollutant: No
- 14.6. Special precautions for user  
N.A.
- 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code  
N.A.

---

### SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture  
Dir. 98/24/EC (Risks related to chemical agents at work)  
Dir. 2000/39/EC (Occupational exposure limit values)  
Regulation (EC) n. 1907/2006 (REACH)  
Regulation (EC) n. 1272/2008 (CLP)  
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013  
Regulation (EU) 2015/830  
Regulation (EU) n. 286/2011 (ATP 2 CLP)  
Regulation (EU) n. 618/2012 (ATP 3 CLP)  
Regulation (EU) n. 487/2013 (ATP 4 CLP)  
Regulation (EU) n. 944/2013 (ATP 5 CLP)  
Regulation (EU) n. 605/2014 (ATP 6 CLP)
- Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:  
Restrictions related to the product:  
Restriction 3  
Restriction 40  
Restrictions related to the substances contained:  
No restriction.
- Where applicable, refer to the following regulatory provisions :  
Directive 2003/105/CE ('Activities linked to risks of serious accidents') and subsequent amendments.  
Regulation (EC) nr 648/2004 (detergents).  
1999/13/EC (VOC directive)
- Provisions related to directive EU 2012/18 (Seveso III):  
N.A.
- 15.2. Chemical safety assessment  
No

---

### SECTION 16: Other information

- Full text of phrases referred to in Section 3:  
H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.  
H315 Causes skin irritation.

# Safety Data Sheet

## CHISEL

H314 Causes severe skin burns and eye damage.  
H302 Harmful if swallowed.  
H318 Causes serious eye damage.  
H312 Harmful in contact with skin.  
H332 Harmful if inhaled.  
H225 Highly flammable liquid and vapour.  
H336 May cause drowsiness or dizziness.  
H226 Flammable liquid and vapour.  
H411 Toxic to aquatic life with long lasting effects.  
H301 Toxic if swallowed.  
H311 Toxic in contact with skin.  
H331 Toxic if inhaled.  
H317 May cause an allergic skin reaction.  
H400 Very toxic to aquatic life.

Paragraphs modified from the previous revision:

SECTION 2: Hazards identification  
SECTION 6: Accidental release measures  
SECTION 9: Physical and chemical properties  
SECTION 11: Toxicological information  
SECTION 12: Ecological information  
SECTION 15: Regulatory information

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,  
Commission of the European Communities  
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van  
Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
CAS: Chemical Abstracts Service (division of the American Chemical Society).  
CLP: Classification, Labeling, Packaging.  
DNEL: Derived No Effect Level.  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
GefStoffVO: Ordinance on Hazardous Substances, Germany.  
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.  
IATA: International Air Transport Association.  
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).  
ICAO: International Civil Aviation Organization.  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).  
IMDG: International Maritime Code for Dangerous Goods.  
INCI: International Nomenclature of Cosmetic Ingredients.  
KSt: Explosion coefficient.  
LC50: Lethal concentration, for 50 percent of test population.  
LD50: Lethal dose, for 50 percent of test population.



# Safety Data Sheet

## CHISEL

LTE:	Long-term exposure.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE:	Short-term exposure.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWATLV:	Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
WGK:	German Water Hazard Class.