

# Safety Data Sheet

## RESTORE

Safety Data Sheet dated 29/1/2018, version 4

This version cancels and substitutes any previous version

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

#### 1.1. Product identifier

Mixture identification:

Trade name: RESTORE

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

Recommended use:

Condenser Cleaner

#### 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

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### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Adverse physicochemical, human health and environmental effects:

No other hazards

#### 2.2. Label elements

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Hazard pictograms:

None

Hazard statements:

None

Precautionary statements:

None

Special Provisions:

EUH210 Safety data sheet available on request.

Contains

1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)-ethanone: May produce an allergic reaction.

1,2-benzisothiazolin-3-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

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances










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N.A.

### 3.2. Mixtures

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

Qty	Name	Ident. Number	Classification
>= 1% - < 2.5%	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	Index number: 603-096-00-8 CAS: 112-34-5 EC: 203-961-6	 3.3/2 Eye Irrit. 2 H319
>= 0.1% - < 0.25%	1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)-ethanone	CAS: 54464-57-2 EC: 259-174-3	 3.2/2 Skin Irrit. 2 H315  3.4.2/1 Skin Sens. 1 H317  4.1/C2 Aquatic Chronic 2 H411
>= 0.001% - < 0.02%	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:

Wash with plenty of water and soap.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

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

No information available.

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

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.

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

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### SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures
    - Wear personal protection equipment.
    - 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
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### SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
    - Avoid contact with skin and eyes, inhalation of vapours and mists.
    - 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 container tightly closed. To maintain product quality, do not store in heat or direct sunlight. Keep in a dry, cool and well-ventilated place.
    - Keep away from food, drink and feed.
    - Incompatible materials:
      - None in particular. See also paragraph 10 below.
    - Instructions as regards storage premises:
      - Adequately ventilated premises.
  - 7.3. Specific end use(s)
    - Information not available.
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### SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
  - 2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether - CAS: 112-34-5
    - EU - TWA(8h): 67.5 mg/m<sup>3</sup>, 10 ppm - STEL: 101.2 mg/m<sup>3</sup>, 15 ppm
    - ACGIH - TWA(8h): 10 ppm - Notes: (IFV) - Hematologic, liver and kidney eff
  - DNEL Exposure Limit Values
    - N.A.
  - PNEC Exposure Limit Values
    - N.A.
- 8.2. Exposure controls
  - Eye protection:
    - Not needed for normal use. Anyway, operate according good working practices.
  - Protection for skin:
    - No special precaution must be adopted for normal use.
  - Protection for hands:
    - Not needed for normal use.
  - Respiratory protection:
    - Not needed for normal use.
  - Thermal Hazards:
    - None
  - Environmental exposure controls:

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None  
Appropriate engineering controls:  
None

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### SECTION 9: Physical and chemical properties

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

Appearance and colour:	liquid azure
Odour:	perfumed
Odour threshold:	N.A.
pH:	10
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:	1.00 g/mL (20°C)
Solubility in water:	total
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.

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### 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

None in particular.

#### 10.6. Hazardous decomposition products

No data available

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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Toxicological information of the product:

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a) acute toxicity

Classification:	Not classified
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Considerations:	Based on available data, the classification criteria are not met
b) skin corrosion/irritation	
Classification:	Not classified
Considerations:	Based on available data, the classification criteria are not met
c) serious eye damage/irritation	
Classification:	Not classified
Considerations:	Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation	
Classification:	Not classified
Considerations:	Based on available data, the classification criteria are not met
e) germ cell mutagenicity	
Classification:	Not classified
Considerations:	Based on available data, the classification criteria are not met
f) carcinogenicity	
Classification:	Not classified
Considerations:	Based on available data, the classification criteria are not met
g) reproductive toxicity	
Classification:	Not classified
Considerations:	Based on available data, the classification criteria are not met
h) STOT-single exposure	
Classification:	Not classified
Considerations:	Based on available data, the classification criteria are not met
i) STOT-repeated exposure	
Classification:	Not classified
Considerations:	Based on available data, the classification criteria are not met
j) aspiration hazard	
Classification:	Not classified
Considerations:	Based on available data, the classification criteria are not met

Toxicological information of the main substances found in the product:

1,2-benzisothiazolin-3-one - CAS: 2634-33-5

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 1020 mg/kg

2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether - CAS: 112-34-5

LD50 (RAT) ORAL: 6560 MG/KG

LD50 (RABBIT) SKIN: 4120 MG/KG

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## SECTION 12: Ecological information

### 12.1. Toxicity

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

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Classification: Not classified for environmental hazards

Considerations: Based on available data, the classification criteria are not met

Data:

1,2-benzisothiazolin-3-one - CAS: 2634-33-5

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### a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 2.18 mg/l - Duration h: 96 - Notes: Species: Oncorhynchus mykiss; Method: OECD TG 203

Endpoint: EC50 - Species: Daphnia 2.94 mg/l - Duration h: 48 - Notes: Species: Daphnia magna; Method: OECD TG 202

Endpoint: ErC50 - Species: Algae 0.11 mg/l - Duration h: 72 - Notes: Species: Pseudokirchneriella subcapitata; Method: OECD TG 201

### 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

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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

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## SECTION 14: Transport information

### 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.

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## 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)

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Regulation (EU) n. 605/2014 (ATP 6 CLP)  
Regulation (EU) n. 2015/1221 (ATP 7 CLP)  
Regulation (EU) n. 2016/918 (ATP 8 CLP)  
Regulation (EU) n. 2016/1179 (ATP 9 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 40

Restrictions related to the substances contained:

Restriction 55

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).

Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

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### SECTION 16: Other information

Full text of phrases referred to in Section 3:

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

H318 Causes serious eye damage.

H400 Very toxic to aquatic life.

H302 Harmful if swallowed.

Hazard class and hazard category	Code	Description
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Skin Sens. 1	3.4.2/1	Skin Sensitisation, Category 1
Skin Sens. 1,1A,1B	3.4.2/1-1A-1B	Skin Sensitisation, Category 1,1A,1B
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2

Paragraphs modified from the previous revision:

SECTION 2: Hazards identification

SECTION 3: Composition/information on ingredients

SECTION 4: First aid measures

SECTION 6: Accidental release measures

SECTION 7: Handling and storage

SECTION 8: Exposure controls/personal protection

SECTION 9: Physical and chemical properties

SECTION 10: Stability and reactivity

SECTION 11: Toxicological information

SECTION 12: Ecological information

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SECTION 15: Regulatory information  
SECTION 16: Other 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.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.