

Safety Data Sheet dated 2/7/2020, version 4.0 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: NO-ACID ULTRA 1.2. Relevant identified uses of the substance or mixture and uses advised against Recommended use: AC/R acid neutralizer 1.3. Details of the supplier of the safety data sheet Company: ERRECOM SPA 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: P280 Wear protective gloves and eye/face protection. Special Provisions: None Contains

buton 1

butan-1-ol

Special provisions according to Annex XVII of REACH and subsequent amendments: None

2.3. Other hazards vPvB Substances: None - PBT Substances: None

NO-ACID ULTRA/4.0 Page n. 1 of 10



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. Numb | er | Classification |
|--------------------------|------------------|-----------------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| >= 12.5% - < 15% | butan-1-ol | Index number: CAS: EC: REACH No.: | 603-004-00-6 71-36-3 200-751-6 01-21194846 30-38-XXXX | 2.6/3 Flam. Liq. 3 H226 3.1/4/Oral Acute Tox. 4 H302 3.2/2 Skin Irrit. 2 H315 3.3/1 Eye Dam. 1 H318 3.8/3 STOT SE 3 H335 3.8/3 STOT SE 3 H336 |
| >= 0.01% - < 0.05% | sodium hydroxide | Index number: CAS: EC: REACH No.: | 011-002-00-6 1310-73-2 215-185-5 01-21194578 92-27-XXXX | 2.16/1 Met. Corr. 1 H290 3.2/1A Skin Corr. 1A H314 3.3/1 Eye Dam. 1 H318 |

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Wash thoroughly the body (shower or bath).

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 opthalmologist 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

No information available.

- 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:

Treat symptomatically.

SECTION 5: Firefighting measures

- 5.1. Extinguishing media
 - Suitable extinguishing media:

NO-ACID ULTRA/4.0 Page n. 2 of 10



Water spray jet, alcohol resistant foam, extinguishing powder, carbon dioxide. 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 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

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.

Advice on general occupational hygiene:

Contamined 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 container tightly closed. To maintain product quality, do not store in heat or direct sunlight. Keep in a dry, cool and well-ventilated place.

Store between + 10 ° C / + 50 ° F and + 25 ° C / + 77 ° F.

- Keep away from food, drink and feed.
- Incompatible materials:
- See subsection 10.5

Instructions as regards storage premises:

- Adequately ventilated premises.
- 7.3. Specific end use(s) Information not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters butan-1-ol - CAS: 71-36-3 ACGIH - TWA(8h): 20 ppm - Notes: Eye and URT irr

NO-ACID ULTRA/4.0 Page n. 3 of 10



sodium hydroxide - CAS: 1310-73-2 ACGIH - STEL: Ceiling 2 mg/m3 - Notes: URT, eye, and skin irr **DNEL Exposure Limit Values** butan-1-ol - CAS: 71-36-3 Worker Professional: 310 mg/m³ - Consumer: 55 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term (repeated) Consumer: 3125 mg/kg - Exposure: Human Oral - Frequency: Long Term (repeated) sodium hydroxide - CAS: 1310-73-2 Worker Professional: 1 mg/m3 - Consumer: 1 mg/m3 - Exposure: Human Inhalation -Frequency: Long Term (repeated) PNEC Exposure Limit Values butan-1-ol - CAS: 71-36-3 Target: Fresh Water - Value: 0.08 mg/l Target: Aquatic, periodic release - Value: 2.25 mg/l Target: Marine water - Value: 0.008 mg/l Target: Freshwater sediments - Value: 0.324 mg/kg Target: Microorganisms in sewage treatments - Value: 2476 mg/l Target: Marine water sediments - Value: 0.032 mg/kg Target: Soil (agricultural) - Value: 0.01 mg/kg 8.2. Exposure controls Eye protection: Use close safety visors, don't use eye lens. Protection for skin: Not needed for normal use. Protection for hands: work gloves resistant to penetration (ref. standard EN 374). Suitable material: NBR (nitrile rubber). Material thickness: 0.4 mm minimum. Break through time : > 480 min Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Respiratory protection: In the case of vapour formation use a respirator with an approved filter. Mask with filter "A", brown colour 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

| .1. Information on basic physical an | d chemical properties |
|--------------------------------------|--------------------------|
| Appearance and colour: | liquid colorless - straw |
| Odour: | characteristic |
| Odour threshold: | N.A. |
| pH: | N.A. |
| Melting point / freezing point: | |
| Initial boiling point and boiling | range: N.A. |
| Solid/gas flammability: | N.A. |
| Upper/lower flammability or ex | plosive limits: N.A. |
| Vapour density: | N.A. |
| Flash point: | >61 ° C |

NO-ACID ULTRA/4.0 Page n. 4 of 10



| Evaporation rate: | N.A. |
|---------------------------------|------------------------|
| Vapour pressure: | N.A. |
| Density: | 0.8 g/mL (+20°C/+68°F) |
| Solubility in water: | N.A. |
| Solubility in oil: | total |
| Partition coefficient (n-octano | /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 p | roperties N.A. |
| V.O.C. (w/w): | N.A. |

SECTION 10: Stability and reactivity

- 10.1. Reactivity
 - It may generate dangerous reactions (See subsections below)
- 10.2. Chemical stability
 - Stable under normal conditions
- Possibility of hazardous reactions
 It may catch fire on contact with powerful oxidising agents.
- 10.4. Conditions to avoid Avoid extreme heat and high-energy ignition sources.
- 10.5. Incompatible materials Strong oxidizing agents.
- 10.6. Hazardous decomposition products

When heated or in the event of fire may release gases and vapors potentially dangerous to health.

SECTION 11: Toxicological information

- 11.1. Information on toxicological effects
- Toxicological information of the product:
 - a) acute toxicity
 - Not classified
 - Based on available data, the classification criteria are not met
 - b) skin corrosion/irritation
 - The product is classified: Skin Irrit. 2 H315
 - c) serious eye damage/irritation
 - The product is classified: Eye Dam. 1 H318
 - d) respiratory or skin sensitisation
 - Not classified
 - Based on available data, the classification criteria are not met
 - e) germ cell mutagenicity
 - Not classified
 - Based on available data, the classification criteria are not met f) carcinogenicity
 - Not classified
 - Based on available data, the classification criteria are not met
 - g) reproductive toxicity
 - Not classified

NO-ACID ULTRA/4.0

Page n. 5 of 10



Based on available data, the classification criteria are not met h) STOT-single exposure Not classified Based on available data, the classification criteria are not met i) STOT-repeated exposure Not classified Based on available data, the classification criteria are not met j) aspiration hazard Not classified Based on available data, the classification criteria are not met Toxicological information of the main substances found in the product: butan-1-ol - CAS: 71-36-3 a) acute toxicity: Test: LD50 - Route: Oral - Species: Rat 2292 mg/kg Test: LD50 - Route: Skin - Species: Rabbit 3430 mg/kg Test: LC0 - Route: Inhalation - Species: Rat > 17.76 mg/l - Duration: 4h Test: NOAEL - Route: Oral - Species: Rat 125 mg/kg - Notes: bw/day b) skin corrosion/irritation: Test: Skin Irritant Positive c) serious eye damage/irritation: Test: Eye Irritant Positive e) germ cell mutagenicity: Test: Ames test Negative Test: chromosomal aberration test Negative g) reproductive toxicity: Test: NOAEL - Route: Oral - Species: Rat 1454 mg/kg - Notes: bw/day h) STOT-single exposure: Test: Respiratory Tract Irritant Positive sodium hydroxide - CAS: 1310-73-2 b) skin corrosion/irritation: Test: Skin Corrosive - Route: Skin - Species: Rabbit Positive c) serious eye damage/irritation: Test: Eye Irritant - Species: Rabbit Positive - Source: Guidelines 405 Test OECD e) germ cell mutagenicity: Test: Ames test - Species: Salmonella Typhimurium Negative

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment. Not classified for environmental hazards

Based on available data, the classification criteria are not met

butan-1-ol

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 1376 mg/l - Duration h: 96 - Notes: Species: Pimephales promelas

Endpoint: EC50 - Species: Daphnia = 1328 mg/l - Duration h: 48 - Notes: Species:

Daphnia magna

Endpoint: EC50 - Species: Algae = 225 mg/l - Duration h: 96 - Notes: Species: Selenastrum capricornutum

sodium hydroxide

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 189 mg/l - Duration h: 48



Endpoint: EC0 - Species: Daphnia = 40.4 mg/l - Duration h: 48 - Notes: Species: Ceriodaphnia dubia

Endpoint: LC50 - Species: Fish 125 mg/l - Duration h: 96 - Notes: Species: Gambusia affinis

Endpoint: LC50 - Species: Fish 45.4 mg/l - Duration h: 96 - Notes: Species Oncorhynchus mykiss

- 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

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-Enviromental 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)

NO-ACID ULTRA/4.0 Page n. 7 of 10



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) Regulation (EU) n. 2017/776 (ATP 10 CLP) Regulation (EU) n. 2018/669 (ATP 11 CLP) Regulation (EU) n. 2018/1480 (ATP 13 CLP) Regulation (EU) n. 2019/521 (ATP 12 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 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.

SECTION 16: Other information

Full text of phrases referred to in Section 3:

- H226 Flammable liquid and vapour.
 - H302 Harmful if swallowed.
 - H315 Causes skin irritation.
 - H318 Causes serious eye damage.
 - H335 May cause respiratory irritation.
 - H336 May cause drowsiness or dizziness.
 - H290 May be corrosive to metals.
 - H314 Causes severe skin burns and eye damage.

| Hazard class and hazard category | Code | Description |
|-------------------------------------|------------|-----------------------------------------------------------------|
| Met. Corr. 1 | 2.16/1 | Substance or mixture corrosive to metals, Category 1 |
| Flam. Liq. 3 | 2.6/3 | Flammable liquid, Category 3 |
| Acute Tox. 4 | 3.1/4/Oral | Acute toxicity (oral), Category 4 |
| Skin Corr. 1A | 3.2/1A | Skin corrosion, Category 1A |
| Skin Irrit. 2 | 3.2/2 | Skin irritation, Category 2 |
| Eye Dam. 1 | 3.3/1 | Serious eye damage, Category 1 |
| STOT SE 3 | 3.8/3 | Specific target organ toxicity - single exposure, Category 3 |

Paragraphs modified from the previous revision:

SECTION 2: Hazards identification

NO-ACID ULTRA/4.0 Page n. 8 of 10



SECTION 3: Composition/information on ingredients SECTION 4: First aid measures SECTION 8: Exposure controls/personal protection SECTION 9: Physical and chemical properties SECTION 11: Toxicological information SECTION 12: Ecological information SECTION 15: Regulatory information SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

| Classification according to Regulation (EC) Nr. 1272/2008 | Classification procedure |
|-----------------------------------------------------------|--------------------------|
| Skin Irrit. 2, H315 | Calculation method |
| Eye Dam. 1, H318 | Calculation method |

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. |
|-------------|-----------------------------------------------------------------------------------------|
| ATE: | Acute Toxicity Estimate |
| ATEmix: | Acute toxicity Estimate (Mixtures) |
| 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: | |
| 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 |

NO-ACID ULTRA/4.0 Page n. 9 of 10



| | 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. |