



**Safety Data Sheet dated 7/3/2019, version 8**


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

- 1.1. Product identifier  
Trade name: SODIO IDRATO IN SOLUZIONE
- 1.2. Relevant identified uses of the substance or mixture and uses advised against  
Recommended use:  
FOR INDUSTRIAL USE  
FOR PROFESSIONAL USE
- 1.3. Details of the supplier of the safety data sheet  
Company:  
ALTAIR CHIMICA S.p.a.  
Via Moie Vecchie 13  
56048 Saline di Volterra (PI)  
Competent person responsible for the safety data sheet: sds@altairchimica.com
- 1.4. Emergency telephone number  
ALTAIR CHIMICA S.p.a. Phone n. +39-0588-9811

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**SECTION 2: Hazards identification**

- 2.1. Classification of the substance or mixture  
EC regulation criteria 1272/2008 (CLP)  
⚠ Warning, Met. Corr. 1, May be corrosive to metals.  
⚠ Danger, Skin Corr. 1, Causes severe skin burns and eye damage.  
Adverse physicochemical, human health and environmental effects:  
No other hazards
- 2.2. Label elements  
Hazard pictograms:  

- Danger  
Hazard statements:  
H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.  
Precautionary statements:  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a doctor.
- Special Provisions:  
None  
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
>= 30% - < 40%	sodium hydroxide; caustic soda	Index number: CAS: EC: REACH No.: 011-002-00-6 1310-73-2 215-185-5 2119457892 -27-0266	⚠ 3.2/1A Skin Corr. 1A H314

### SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

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.

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.

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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
  - After the product has been recovered, rinse the area and materials involved with water.
  - 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.
  - 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:  
Acrolein, alcohol, maleic anhydride, trichlorethylene, bases, amines, alkali metals, copper, copper alloys, aluminum.
  - Instructions as regards storage premises:  
Adequately ventilated premises.
- 7.3. Specific end use(s)
  - None in particular

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### SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters
  - sodium hydroxide; caustic soda - CAS: 1310-73-2
  - ACGIH - STEL: Ceiling 2 mg/m<sup>3</sup> - Notes: URT, eye, and skin irr

#### DNEL Exposure Limit Values

sodium hydroxide; caustic soda - CAS: 1310-73-2

Worker Industry: 1 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, local effects

Consumer: 1 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, local effects

#### PNEC Exposure Limit Values

N.A.

#### 8.2. Exposure controls

Eye protection:

Basket eye glasses.

Protection for skin:  
Full protection suit.

Protection for hands:  
Suitable gloves type:  
UNI EN 420/UNI EN 374  
Butyl caoutchouc (butyl rubber).  
CR (polychloroprene, chloroprene rubber).  
PVC (polyvinyl chloride).

Respiratory protection:  
Mask with filter "P", white colour

Thermal Hazards:  
None

Environmental exposure controls:  
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
Odour:	Characteristic
Odour threshold:	N.A.
pH:	14 (sol. 5%)
Melting point / freezing point:	N.A.
Initial boiling point and boiling range:	140-144 °C (sol. 48%-52%)
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:	387 Pa (25°C) (sol. 50%)
Relative density:	1.3317 (sol. 30%)
Solubility in water:	100%
Solubility in oil:	N.A.
Partition coefficient (n-octanol/water):	N.A.
Auto-ignition temperature:	N.A.
Decomposition temperature:	N.A.
Viscosity:	115 mPa*s (20°C) (sol. 50%)
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.

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### SECTION 10: Stability and reactivity

10.1. Reactivity  
Stable under normal conditions  
The product is a strong base and rapidly absorbs moisture from the air.

10.2. Chemical stability  
Stable under normal conditions

10.3. Possibility of hazardous reactions  
It dissolves in water, alcohol and glycerine with heat development.  
Exothermic reaction with acids and halogenated substances.  
It can cause violent polymerization of acrolein and acrylonitrile.  
Reacts with mixtures of chloroform and alcohol with evolution of heat, can cause the explosive

decomposition of maleic anhydride and in case of high heat form explosive products with trichlorethylene.

It reacts with metals producing hydrogen.

#### 10.4. Conditions to avoid

Stable under normal conditions.

Exposure to moisture.

Exposure to direct sunlight.

Freezing.

#### 10.5. Incompatible materials

Oxidizing agents, acids, water, metals, aluminum, other light metals.

#### 10.6. Hazardous decomposition products

Hydrogen

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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Toxicological information of the product:

SODIO IDRATO IN SOLUZIONE

##### a) acute toxicity

Not classified

Based on available data, the classification criteria are not met

##### b) skin corrosion/irritation

The product is classified: Skin Corr. 1 H314

##### c) serious eye damage/irritation

Not classified

Based on available data, the classification criteria are not met

##### 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

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:

sodium hydroxide; caustic soda - CAS: 1310-73-2

##### b) skin corrosion/irritation:

Test: Skin Corrosive Positive

##### c) serious eye damage/irritation:

Test: Eye Irritant Positive

sodium hydroxide; caustic soda - CAS: 1310-73-2

LD50 (oral, rat): 260 mg/Kg

**SECTION 12: Ecological information**

- 12.1. Toxicity  
 Adopt good working practices, so that the product is not released into the environment.  
 SODIO IDRATO IN SOLUZIONE  
 Not classified for environmental hazards  
 Based on available data, the classification criteria are not met  
 sodium hydroxide; caustic soda - CAS: 1310-73-2  
 a) Aquatic acute toxicity:  
 Endpoint: LC50 - Species: Fish = 35-189 mg/l - Duration h: 96  
 Endpoint: EC50 - Species: Crustaceans = 40.4 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**



- 14.1. UN number  
 ADR-UN Number: 1824  
 IATA-UN Number: 1824  
 IMDG-UN Number: 1824
- 14.2. UN proper shipping name  
 ADR-Shipping Name: SODIUM HYDROXIDE SOLUTION  
 IATA-Shipping Name: SODIUM HYDROXIDE SOLUTION  
 IMDG-Shipping Name: SODIUM HYDROXIDE SOLUTION
- 14.3. Transport hazard class(es)  
 ADR-Class: 8  
 ADR - Hazard identification number: 80  
 IATA-Class: 8  
 IATA-Label: 8  
 IMDG-Class: 8
- 14.4. Packing group  
 ADR-Packing Group: II  
 IATA-Packing group: II  
 IMDG-Packing group: II
- 14.5. Environmental hazards  
 ADR-Environmental Pollutant: No  
 IMDG-Marine pollutant: No
- 14.6. Special precautions for user  
 ADR-Subsidiary risks: -

ADR-S.P.: -  
ADR-Transport category (Tunnel restriction code): (E)  
IATA-Passenger Aircraft: 851  
IATA-Subsidiary risks: -  
IATA-Cargo Aircraft: 855  
IATA-S.P.: A3 A803  
IATA-ERG: 8L  
IMDG-EmS: F-A , S-B  
IMDG-Subsidiary risks: -  
IMDG-Stowage and handling: Category A  
IMDG-Segregation: "Separated from" acids.

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)  
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)

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

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).

1999/13/EC (VOC directive)

Dir. 2004/42/EC (VOC directive)

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

N.A.

15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for the mixture.

Substances for which a Chemical Safety Assessment has been carried out:

None

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## **SECTION 16: Other information**

Full text of phrases referred to in Section 3:

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
Skin Corr. 1	3.2/1	Skin corrosion, Category 1
Skin Corr. 1A	3.2/1A	Skin corrosion, Category 1A

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
Met. Corr. 1, H290	On basis of test data
Skin Corr. 1, H314	On basis of test data (pH)

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:	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.
N.A.:	Not Available





## Safety Data Sheet

# SODIO IDRATO IN SOLUZIONE

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.