



**Safety Data Sheet dated 21/9/2021, version 13**

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

1.1. Product identifier

Mixture identification:

Trade name: ENGINE CLEANER

Trade code: 31017

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

Recommended use:

Car engine detergent

1.3. Details of the supplier of the safety data sheet

Supplier:

Arexons S.p.A.

via Antica di Cassano, 23, 20063

Cernusco sul Naviglio (MI), Italy

Arexons S.p.A.

Tel. +39 (0)2/924361 - Fax +39 (0)2/92436306

Competent person responsible for the safety data sheet:

arexons@arexons.it

1.4. Emergency telephone number

Arexons S.p.A.

Tel. +39 (0)2/924361 - Fax +39 (0)2/92436306

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

In Ireland: Beaumont Hospital - National Poisons Information Centre 01 809 2166 (7days, 8:00 - 22:00)

In South Africa: Poison Information Helpline 0861 555 777

In Malta: emergency number 112

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**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:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read carefully and follow all instructions.

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

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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### ENGINE CLEANER



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 POISON CENTER.

P405 Store locked up.

P501 Dispose of contents/container in accordance with applicable regulations.

#### Special Provisions:

PACK1 The packing must be featured by a safety lock for children.

PACK2 The packing must have tactile indications of danger for blind people.

#### Contains

Laureth-7; Alcohols, C9-11-iso-, C10-rich, ethoxylated tetrasodium ethylene diamine tetraacetate

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

None

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

Product contents:

EDTA and salts thereof

< 5 %

Non-ionic surfactants

5 - 15 %

#### 2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration  $\geq 0.1\%$

Other Hazards:

No other hazards

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## 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:

$\geq 7\%$  -  $< 10\%$  Laureth-7; Alcohols, C9-11-iso-, C10-rich, ethoxylated

CAS: 78330-20-8

⚠ 3.1/4/Oral Acute Tox. 4 H302

⚠ 3.3/1 Eye Dam. 1 H318

$\geq 3\%$  -  $< 5\%$  Dipropylene glycol methyl ether

REACH No.: 01-2119450011-60, CAS: 34590-94-8, EC: 252-104-2

Substance with a Union workplace exposure limit.

$\geq 2\%$  -  $< 3\%$  tetrasodium ethylene diamine tetraacetate

REACH No.: 01-2119486762-27, Index number: 607-428-00-2, CAS: 64-02-8, EC: 200-573-9

⚠ 3.1/4/Oral Acute Tox. 4 H302

⚠ 3.3/1 Eye Dam. 1 H318

⚠ 3.1/4/Inhal Acute Tox. 4 H332

⚠ 3.9/2 STOT RE 2 H373

$\geq 0.1\%$  -  $< 0.25\%$  caustic soda

REACH No.: 01-2119457892-27, CAS: 1310-73-2, EC: 215-185-5

⚠ 3.2/1A Skin Corr. 1A H314

Specific Concentration Limits:

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0,1% <= C < 2%: Skin Irrit. 2 H315  
0,1% <= C < 2%: Eye Irrit. 2 H319  
2% <= C < 5%: Skin Corr. 1B H314  
C >= 5%: Skin Corr. 1A H314

Acute Toxicity Estimate:

>= 0.05% - < 0.1% sodium hydroxide; caustic soda  
REACH No.: 01-2119457892-27, Index number: 011-002-00-6, CAS: 1310-73-2, EC: 215-185-5  
⚠ 2.16/1 Met. Corr. 1 H290  
⚠ 3.2/1A Skin Corr. 1A H314  
⚠ 3.3/1 Eye Dam. 1 H318

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#### 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 induce vomiting.

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

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#### SECTION 5: Firefighting measures

5.1. Extinguishing media

Appropriate Extinguishing Media:

To carbon dioxide.

To dust.

Foam

Water spray.

Not Recommended Extinguishing Media:

Do not use direct water jets.

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.

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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.
  - 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.
  - See also section 8 for recommended protective equipment.
  - Advice on general occupational hygiene:
    - Contaminated clothing should be changed before entering eating areas.
    - Do not eat or drink while working.
- 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

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### **SECTION 8: Exposure controls/personal protection**

- 8.1. Control parameters
  - Dipropylen glycol methyl ether - CAS: 34590-94-8
    - 20101.10 - TWA(8h): 308 mg/m<sup>3</sup>, 50 ppm
    - EU - TWA(8h): 308 mg/m<sup>3</sup>, 50 ppm - Notes: Skin
    - ACGIH - TWA(8h): 100 ppm - STEL: 150 ppm - Notes: Skin - Eye and URT irr, CNS impair
  - tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8
    - 20101.12 - TWA: 5 mg/m<sup>3</sup>
  - caustic soda
    - CAS: 1310-73-2
      - ACGIH - STEL: Ceiling 2 mg/m<sup>3</sup> - Notes: URT, eye, and skin irr
    - sodium hydroxide; caustic soda - CAS: 1310-73-2
      - 20101.10 - TWA: 2 mg/m<sup>3</sup>
      - ACGIH - STEL: Ceiling 2 mg/m<sup>3</sup> - Notes: URT, eye, and skin irr
- DNEL Exposure Limit Values
  - Dipropylen glycol methyl ether - CAS: 34590-94-8

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Consumer: 36 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects  
 Worker Professional: 308 mg/m3 - Consumer: 37.2 mg/m3 - Exposure: Human Inhalation -  
 Frequency: Long Term, systemic effects  
 Worker Professional: 283 mg/kg - Consumer: 121 mg/kg - Exposure: Human Dermal -  
 Frequency: Long Term, systemic effects  
 tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8  
 Worker Industry: 1.5 mg/m3 - Consumer: 1.7 - Exposure: Human Inhalation - Frequency:  
 Long Term, systemic effects  
 caustic soda

- CAS: 1310-73-2  
 Worker Professional: 1 mg/m3 - Consumer: 1 mg/m3 - Exposure: Human Inhalation -  
 Frequency: Long Term, systemic effects  
 sodium hydroxide; caustic soda - CAS: 1310-73-2  
 Worker Professional: 1 mg/m3 - Consumer: 1 mg/m3 - Exposure: Human Inhalation -  
 Frequency: Long Term, systemic effects

### PNEC Exposure Limit Values

Dipropylen glycol methyl ether - CAS: 34590-94-8  
 Target: Fresh Water - Value: 19 mg/l  
 Target: Marine water - Value: 1.9 mg/l  
 Target: Marine water sediments - Value: 7.02 mg/kg  
 Target: Freshwater sediments - Value: 70.2 mg/kg  
 Target: 09 - Value: 4168 mg/l  
 tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8  
 Target: Fresh Water - Value: 2.86 mg/l  
 Target: Marine water - Value: 0.286 mg/l  
 Target: 08 - Value: 1.56 mg/l  
 Target: Soil (agricultural) - Value: 0.937 mg/kg  
 Target: 09 - Value: 55.94 mg/l

### 8.2. Exposure controls

#### Eye protection:

Eye glasses with side protection.  
 Compliant with EN 166

#### Protection for skin:

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

#### Protection for hands:

Nitrile or Viton gloves.  
 Compliant with EN 374.

#### 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

Properties	Value	Method:	Notes:
Physical state:	Liquid	--	--
Colour:	light yellow	--	--
Odour:	Characteristic	--	--

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Melting point/freezing point:	N.A.	--	--
Boiling point or initial boiling point and boiling range:	100 °C	--	--
Flammability:	N.A.	--	--
Lower and upper explosion limit:	N.A.	--	--
Flash point:	N.A.	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
pH:	12.5	--	--
Kinematic viscosity:	N.A.	--	--
Solubility in water:	Soluble	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient n-octanol/water (log value):	N.A.	--	--
Vapour pressure:	N.A.	--	--
Density and/or relative density:	1,030	--	--
Relative vapour density:	N.A.	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

9.2. Other information  
No other relevant information

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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



None.

## **SECTION 11: Toxicological information**

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological information of the product:

ENGINE CLEANER ML 400

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

Test: Skin Corrosive - Route: Skin - Species: RHE 84.5 % - Duration: 3min - Based on available data, the classification criteria are not met

Test: Skin Corrosive - Route: Skin - Species: RHE 66 % - Duration: 1h - Based on available data, the classification criteria are not met

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

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:

Dipropylene glycol methyl ether - CAS: 34590-94-8

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit > 9510 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat 275 Ppm - Duration: 7h

tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 1780 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat > 1-5 mg/l - Duration: 4h

b) skin corrosion/irritation:

Test: Skin Irritant - Species: Rabbit Negative

c) serious eye damage/irritation:

Test: Eye Irritant - Species: Rabbit Positive

d) respiratory or skin sensitisation:

Test: Skin Sensitization - Species: IND Negative

g) reproductive toxicity:

Test: NOAEL - Species: Rat > 250 mg/kg

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caustic soda

- CAS: 1310-73-2

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rabbit 325 mg/kg

#### 11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration  $\geq$  0.1%

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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.

Laureth-7; Alcohols, C9-11-iso-, C10-rich, ethoxylated - CAS: 78330-20-8

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 1 mg/l - Notes: OECD TG 203

Endpoint: EC50 - Species: Daphnia > 1 mg/l - Notes: OECD TG 202

Endpoint: EC50 - Species: Algae > 1 mg/l - Notes: OECD TG 201

Dipropylen glycol methyl ether - CAS: 34590-94-8

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 1000 mg/l - Duration h: 96

Endpoint: LC50 - Species: Daphnia 1919 mg/l - Duration h: 48

Endpoint: CE5 - Species: Algae > 969 mg/l - Duration h: 72

tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 100 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia 140 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae > 100 mg/l - Duration h: 72

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Fish > 25.7 mg/l - Duration h: 840

Endpoint: NOEC - Species: Daphnia > 25 mg/l - Duration h: 504

caustic soda

- CAS: 1310-73-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 35-189 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia 40.4 mg/l - Duration h: 48

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

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia 40.4 mg/l - Duration h: 48

### 12.2. Persistence and degradability

None

Laureth-7; Alcohols, C9-11-iso-, C10-rich, ethoxylated - CAS: 78330-20-8

Biodegradability: Readily biodegradable

tetrasodium ethylene diamine tetraacetate - CAS: 64-02-8

Biodegradability: Non-readily biodegradable

### 12.3. Bioaccumulative potential

Laureth-7; Alcohols, C9-11-iso-, C10-rich, ethoxylated - CAS: 78330-20-8

Bioaccumulation: Not bioaccumulative

### 12.4. Mobility in soil

N.A.

### 12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

### 12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration  $\geq$  0.1%

### 12.7. Other adverse effects



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None

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#### 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.

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#### SECTION 14: Transport information

##### 14.1. UN number or ID 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. Maritime transport in bulk according to IMO instruments

No

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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) n. 2020/878

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)

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

Restrictions related to the substances contained:

No restriction.

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Volatile Organic compounds - VOCs = 4.50 %

Volatile Organic compounds - VOCs = 45.00 g/Kg

Volatile Organic compounds - VOCs = 46.35 g/l

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.

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

None

### SECTION 16: Other information

Text of phrases referred to under heading 3:

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

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

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H290 May be corrosive to metals.

Hazard class and hazard category	Code	Description
Met. Corr. 1	2.16/1	Substance or mixture corrosive to metals, Category 1
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1A	3.2/1A	Skin corrosion, Category 1A
Skin Corr. 1B	3.2/1B	Skin corrosion, Category 1B
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
STOT RE 2	3.9/2	Specific target organ toxicity - repeated exposure, Category 2

Paragraphs modified from the previous revision:

SECTION 2: Hazards identification

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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	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.
NA:	Not applicable
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.

# Exposure Scenario, 01/08/2019

Substance identity	
Chemical name	IDROSSIDO DI SODIO (SODA CAUSTICA SOLUZIONE 30%)
CAS No.	1310-73-2
EINECS No.	215-185-5

## Table of contents

1. **ES 1** Widespread use by professional workers; Various products (PC2, PC14, PC15, PC19, PC20)
2. **ES 2** Consumer use; Various products (PC39, PC20, PC35)

# 1. ES 1

Widespread use by professional workers; Various products (PC2, PC14, PC15, PC19, PC20)

## 1.1 TITLE SECTION

<b>Exposure Scenario name</b>	Industrial and professional use
<b>Date - Version</b>	01/08/2019 - 1.0
<b>Life Cycle Stage</b>	Widespread use by professional workers
<b>Main user group</b>	Professional uses
<b>Sector(s) of use</b>	Industrial uses (SU3) - Consumer uses (SU21)
<b>Product Categories</b>	Adsorbents (PC2) - Metal surface treatment products (PC14) - Non-metal surface treatment products (PC15) - Intermediate (PC19) - Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents (PC20) - Laboratory chemicals (PC21) - Washing and cleaning products (PC35) - Water softeners (PC36) - Water treatment chemicals (PC37)

### Environment Contributing Scenario

<b>CS1 Covered by</b>	ERC1 - ERC4 - ERC6a - ERC2 - ERC6b - ERC7 - ERC8a - ERC8b - ERC8d - ERC9a
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### Worker Contributing Scenario

<b>CS2 General use from professional operators</b>	PROC5 - PROC1 - PROC2 - PROC3 - PROC4 - PROC8a - PROC8b - PROC9 - PROC10 - PROC11 - PROC13 - PROC15
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## 1.2 Conditions of use affecting exposure

### 1.2. CS1: Environment Contributing Scenario: Covered by (ERC1, ERC4, ERC6a, ERC2, ERC6b, ERC7, ERC8a, ERC8b, ERC8d, ERC9a)

<b>Environmental release categories</b>	Manufacture of the substance - Use of non-reactive processing aid at industrial site (no inclusion into or onto article) - Use of intermediate - Formulation into mixture - Use of reactive processing aid at industrial site (no inclusion into or onto article) - Use of functional fluid at industrial site - Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) - Widespread use of functional fluid (indoor) (ERC1, ERC4, ERC6a, ERC2, ERC6b, ERC7, ERC8a, ERC8b, ERC8d, ERC9a)
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### Product (article) characteristics

**Physical form of product:**

Liquid

**Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### Conditions and measures related to treatment of waste (including article waste)

**Waste treatment**

Product residual disposal complies with applicable regulations.

### 1.2. CS2: Worker Contributing Scenario: General use from professional operators (PROC5, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC15)

<b>Process Categories</b>	Mixing or blending in batch processes - Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition - Chemical production where opportunity for exposure arises - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Transfer of substance or mixture into small containers (dedicated filling line, including weighing) - Roller application or brushing - Non industrial spraying - Treatment of
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articles by dipping and pouring - Use as laboratory reagent (PROC5, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC15)

### *Product (article) characteristics*

#### **Physical form of product:**

Liquid

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

### *Amount used, frequency and duration of use/exposure*

#### **Duration:**

Covers daily exposures up to 8 hours

#### **Frequency:**

Covers use up to 200 days per year

### *Technical and organisational conditions and measures*

#### **Technical and organisational measures**

- Sample via a closed loop or other system to avoid exposure.
- Handle substance within a closed system.
- Provide extract ventilation to points where emissions occur.
- Store substance within a closed system.

### *Conditions and measures related to personal protection, hygiene and health evaluation*

#### **Personal protection**

- Wear suitable gloves tested to EN374.
- Use eye protection according to EN 166.

## 1.3 Exposure estimation and reference to its source

### **1.3. CS2: Worker Contributing Scenario: General use from professional operators (PROC5, PROC1, PROC2, PROC3, PROC4, PROC8a, PROC8b, PROC9, PROC10, PROC11, PROC13, PROC15)**

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
inhalative, systemic, long-term	0.17 mg/m <sup>3</sup>	N/A	N/A

## 1.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

#### **Guidance to check compliance with the exposure scenario:**

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

## 2. ES 2 Consumer use; Various products (PC39, PC20, PC35)

### 2.1 TITLE SECTION

Exposure Scenario name	Consumer goods
Date - Version	01/08/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Cosmetics, personal care products (PC39) - Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents (PC20) - Washing and cleaning products (PC35)

### Environment Contributing Scenario

CS1 Covered by	ERC8a - ERC8b - ERC8d - ERC9a
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### Consumer Contributing Scenario

CS2 Consumer	PC39 - PC20 - PC35
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## 2.2 Conditions of use affecting exposure

### 2.2. CS1: Environment Contributing Scenario: Covered by (ERC8a, ERC8b, ERC8d, ERC9a)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of reactive processing aid (no inclusion into or onto article, indoor) - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor) - Widespread use of functional fluid (indoor) (ERC8a, ERC8b, ERC8d, ERC9a)
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### *Product (article) characteristics*

#### Physical form of product:

Liquid

#### Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

### *Conditions and measures related to treatment of waste (including article waste)*

#### Waste treatment

Product residual disposal complies with applicable regulations.

### 2.2. CS2: Consumer Contributing Scenario: Consumer (PC39, PC20, PC35)

Product Categories	Cosmetics, personal care products - Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents - Washing and cleaning products (PC39, PC20, PC35)
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### *Product (article) characteristics*

#### Physical form of product:

Liquid

#### Concentration of substance in product:

Covers percentage substance in the product up to 100 %.

### *Information and behavioural advice for consumers*

#### Information and behavioural advice for consumers:

Avoid contact with eyes  
Avoid using without gloves.  
Do not inhale spray vapour.  
Packaging with child-resistant fastening  
Keep away from children.  
It is recommended to wear household gloves when handling undiluted product.

## 2.3 Exposure estimation and reference to its source

N/A

## 2.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

### **Guidance to check compliance with the exposure scenario:**

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.