

according to EC Regulation n. 1907/2006 (REACH) - EU Regulation n. 830/2015

Version 3, dated 25/06/2018

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

1.1. Product identifier

Mixture identification:

Trade name: TAROPRENE 1A - TAROPRENE 1D

(see product list at point 16)

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

Reccomende use: elastomeric compound - industrial use

1.3. Details of the supplier of the safety data sheet

Company:

TARO PLAST SPA Strada Diolo 57/A I-43019 Soragna (PR)

Tel. +39 0524596711 Fax +39 0524599084

Competent person responsible for the safety data sheet:

taroplast@taroplast.com

1.4. Emergency telephone number

Tel. +39 0524596711 Fax +39 0524599084 Office hours: 8:30 -17:00 e-mail: taroplast@taroplast.com

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):

Aquatic Chronic 3, Harmful to aquatic life with long lasting effects.

Properties / Symbols:

According to the CLP Regulation the product is classified as "Aquatic Chronic 3, Harmful to aquatic life with long lasting effects" for the content of hazardous ingredient listed in section 3.

The product is a compound consisting of an inert polymer containing specific components; any contamination risks connected to them are minimized, as said components are dispersed and completely incorporated in the basic polymeric matrix.

The mixture is not dangerous for the health in the form in which it is placed on the market.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

The product does not need to be labeled according to Regulation EC 1272/2008 (CLP) art. 23 - (Annex I - 1.3.4)

Hazard pictograms:

None

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P273 Avoid release to the environment.

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

Special Provisions:

None

Contains

Stannous Chloride: May produce an allergic reaction.

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

according to EC Regulation n. 1907/2006 (REACH) - EU Regulation n. 830/2015

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 |
|--------|-------------------|--|---|--|
| <0.6 % | Zinc Oxide | Index number: CAS: EC: REACH No.: | 030-013-00-7 1314-13-2 215-222-5 01-2119463881- 32-XXXX | 4.1/A1 Aquatic Acute 1 H400 M=1. 4.1/C1 Aquatic Chronic 1 H410 M=1. |
| <0.2 % | Stannous Chloride | CAS: EC: REACH No.: | 7772-99-8 231-868-0 01-2119971277- 28-xxxx | 2.16/1 Met. Corr. 1 H290 3.8/3 STOT SE 3 H335 3.9/2 STOT RE 2 H373 4.1/A1 Aquatic Acute 1 H400 4.1/C1 Aquatic Chronic 1 H410 3.1/4/Inhal Acute Tox. 4 H332 3.4.2/1 Skin Sens. 1 H317 3.3/1 Eye Dam. 1 H318 3.2/1B Skin Corr. 1B H314 |

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Product, at ambient conditions, is not expected to be hazardous by skin contact. Should irritation occur, rinse with water and soap.

In case of contact with molten material, wash with plenty of water.

Remove contaminated clothing and dispose off safely.

Do not attempt to remove solidified polymer from skin.

In case of eyes contact:

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

In case of irritation caused by fine dust, rinse with water until irritation dissapears.

In case of contact with molten plastic, wash immediately with cold water and seek medical attention.

In case of Ingestion:

No specific measures. Seek a medical examination and present the safety-data sheet. In case of Inhalation:

Product fine dust may cause mild respiratory irritation. Ventilate the premises.

Remove casualty to fresh air and keep warm and at rest. Ventilate the premises.

In case of irritation from inhalation of processing fumes, remove the patient from the contaminated premises and made to rest in a well ventilated area. Should the patient feel unwell, OBTAIN MEDICAL ATTENTION

4.2. Most important symptoms and effects, both acute and delayed None

according to EC Regulation n. 1907/2006 (REACH) - EU Regulation n. 830/2015

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 in particular

SECTION 5: Firefighting measures

5.1. Extinguishing media

Water. Carbon dioxide (CO2). Foam, Chemical powders (sand or earth only for small fires), according to the materials involved in the fire.

Extinguishing media which must not be used for safety reasons:

Direct strong water jet.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke. Avoid inhaling the fumes. Combustion products: carbon monoxide (CO), ketonic acids, dense and opaque smoke. Under certain fire conditions it can not be ruled out the presence of traces of other toxic substances. The production of further decomposition products depends upon the fire conditions

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

Avoid dust formation.

Wear personal protection equipment. Use protective gloves, during processing of the molten material.

Spills of the product on the floor, can cause slip hazard

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

Collect the product with mechanical means for re-use if possible, or for elimination.

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. Avoid dust formation.

Wear personal protection equipment. Use protective gloves, during processing of the molten material.

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.

Take proper precautions when transferring, including grounding all equipment and providing an inert atmosphere to prevent electrostatic charge formation. Avoid dust accumulation.

Contamined clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

according to EC Regulation n. 1907/2006 (REACH) - EU Regulation n. 830/2015

7.2. Conditions for safe storage, including any incompatibilities

Store in closed containers in a dry place, not exposed to direct sunlight. Avoid extreme heat.

Avoid all sources of ignition: heat, sparks, open flame.

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

zinc oxide - CAS: 1314-13-2

ACGIH - TWA(8h): 2 mg/m3 - STEL: 10 mg/m3 - Notes: (R) - Metal fume fever

DNEL Exposure Limit Values

Stannous Chloride - CAS: 7772-99-8

Worker Professional: 8 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term,

systemic effects

Worker Professional: 8 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term,

systemic effects

Worker Professional: 8 mg/cm2 - Exposure: Human Dermal - Frequency: Long Term,

local effects

Worker Professional: 8 mg/cm2 - Exposure: Human Dermal - Frequency: Short Term,

local effects

PNEC Exposure Limit Values

Stannous Chloride - CAS: 7772-99-8

Target: Marine water - Value: 0.035 mg/l

Target: Freshwater sediments - Value: 58 mg/kg Target: Soil (agricultural) - Value: 0.068 mg/kg

8.2. Exposure controls

Eve protection:

Not needed for normal use. Anyway, operate according good working practices.

Use close fitting safety goggles during the high temperature operations. Don't use eye lens.

Protection for skin:

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

Immediately remove any clothing soiled by the melted material.

Protection for hands:

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

Wear gloves to prevent contact during hot melt conditions.

Respiratory protection:

Not needed for normal use. Use protection for the respiratory tract during hot melt conditions.

Thermal Hazards:

Pay attention during high temperature operation. Contact with molten product may cause thermal burns.

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

according to EC Regulation n. 1907/2006 (REACH) - EU Regulation n. 830/2015

| Properties | Value | Method: | Notes: |
|--|---|---------|--------|
| Appearance and colour: | solid granulated – different colours | | |
| Odour: | Typical rubber | | |
| Odour threshold: | N.A. | | |
| pH: | N.A. | | |
| Melting point / melting range: | >100°C | | |
| Initial boiling point and boiling range: | N.A. | | |
| Flash point: | N.A. | | |
| Evaporation rate: | N.A. | | |
| Solid/gas flammability: | N.A. | | |
| Upper/lower flammability | N.A. | | |
| or explosive limits: | | | |
| Vapour pressure: | N.A. | | |
| Vapour density: | N.A. | | |
| Relative density: | 0.89 - 1.20 g/cm3 | | |
| Solubility in water: | N.A. | | |
| Solubility in oil: | N.A. | | |
| Partition coefficient (n- | N.A. | | |
| octanol/water): | | | |
| Auto-ignition temperature: | N.A. | | |
| Decomposition | >300°C | | |
| temperature: | | | |
| Viscosity: | N.A. | | |
| Explosive properties: | N.A. | | |
| Oxidizing properties: | N.A. | | |

9.2. Other information

| Properties | Value | Method: | Notes: |
|--------------------------------------|-------------------------|---------|--------|
| Miscibility: | N.A. | | |
| Fat Solubility: | N.A. | | |
| Conductivity: | N.A. | | |
| Hardness: | from 25 sh A to 60 sh D | | |
| Substance Groups relevant properties | N.A. | | |

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions. During processing do not exceed melt temperature recommendations. HYGROSCOPIC MATERIAL

10.2. Chemical stability

Stable under normal conditions (see section 7 – Storage and handling reccomendations). Thermal decomposition > 300°C

10.3. Possibility of hazardous reactions. The product is chemically stable.

None

10.4. Conditions to avoid

Stable under normal conditions. Avoid grinding and pulverizing. Keep away from sources of ignition: heat, sparks, open flames. During processing do not exceed melt temperature recommendations (see product datasheet / product specification).

according to EC Regulation n. 1907/2006 (REACH) - EU Regulation n. 830/2015

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

carbon monoxide, carbon dioxide, ketonic acids (traces).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the product:

N.A.

Toxicological information of the main substances found in the product:

zinc oxide - CAS: 1314-13-2

a) acute toxicity:

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

Stannous Chloride - CAS: 7772-99-8

b) skin corrosion/irritation:

Test: Skin Corrosive - Route: Skin

c) serious eye damage/irritation:

Test: Eye Corrosive

d) respiratory or skin sensitisation:

Test: Inhalation Sesitization

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;
- i) aspiration hazard.

SECTION 12: Ecological information

12.1. Toxicity

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

Stannous Chloride - CAS: 7772-99-8

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 10.19 mg/l - Duration h: 96 Endpoint: EC50 - Species: Daphnia = 22 mg/l - Duration h: 48

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia = 0.18 mg/l - Duration h: 21

12.2. Persistence and degradability

None

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

according to EC Regulation n. 1907/2006 (REACH) - EU Regulation n. 830/2015

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.

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

N.A.

14.6. Special precautions for user

N.A

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

None

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

This document is valid for the materials listed below:

according to EC Regulation n. 1907/2006 (REACH) - EU Regulation n. 830/2015

- TAROPRENE 1 Axx - TAROPRENE 1 Dxx

where: xx = hardness in Shore A or Shore D

Text of phrases referred to under heading 3:

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H290 May be corrosive to metals.

H335 May cause respiratory irritation.

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

H332 Harmful if inhaled.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

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 |
| Acute Tox. 4 | 3.1/4/Inhal | Acute toxicity (inhalation), Category 4 |
| Skin Corr. 1B | 3.2/1B | Skin corrosion, Category 1B |
| Eye Dam. 1 | 3.3/1 | Serious eye damage, Category 1 |
| Skin Sens. 1 | 3.4.2/1 | Skin Sensitisation, Category 1 |
| STOT SE 3 | 3.8/3 | Specific target organ toxicity - single exposure, Category 3 |
| STOT RE 2 | 3.9/2 | Specific target organ toxicity - repeated exposure, Category 2 |
| Aquatic Acute 1 | 4.1/A1 | Acute aquatic hazard, category 1 |
| Aquatic Chronic 1 | 4.1/C1 | Chronic (long term) aquatic hazard, category 1 |
| Aquatic Chronic 3 | 4.1/C3 | Chronic (long term) aquatic hazard, category 3 |

This safety data sheet has been completely updated in compliance to Regulation 2015/830. 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 | |
|---|--------------------------|--|
| Aquatic Chronic 3, H412 | 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.

according to EC Regulation n. 1907/2006 (REACH) - EU Regulation n. 830/2015

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.