

Safety Data Sheet

ROXIDAN

Safety Data Sheet dated 2/11/2022, version 6

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

1.1. Product identifier

Mixture identification:

Trade name: ROXIDAN
Trade code: 391

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

Recommended use:

Coating material

1.3. Details of the supplier of the safety data sheet

Company:
SAN MARCO GROUP S.P.A.
Via Alta 10
30020 MARCON (VE) - Italy -
Tel.+39 041 4569322
Fax. +39 041 5950153

Competent person responsible for the safety data sheet:

sicurezza.prodotti@sanmarcogroup.it

1.4. Emergency telephone number

Technical information: SAN MARCO GROUP SPA +39 041 4569322 (Monday – Friday
9.00-12.30 ; 13.30-17.00)

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.

EUH208 Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

EUH208 Contains reaction mass of 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7]
and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction.

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

None

2.3. Other hazards

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

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

391/6

Page n. 1 of 10

Safety Data Sheet

ROXIDAN

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
>= 3% - < 5%	aluminium powder (stabilised)	Index number: 013-002-00-1 CAS: 7429-90-5 EC: 231-072-3 REACH No.: 01-2119529243-45-XXXX	<ul style="list-style-type: none"> ⚠ 2.12/2 Water-react. 2 H261 ⚠ 2.7/1 Flam. Sol. 1 H228
>= 3% - < 5%	2-butoxyethanol	Index number: 603-014-00-0 CAS: 111-76-2 EC: 203-905-0 REACH No.: 01-2119475108-36-XXXX	<ul style="list-style-type: none"> ⚠ 3.1/3/Inhal Acute Tox. 3 H331 ⚠ 3.1/4/Oral Acute Tox. 4 H302 ⚠ 3.2/2 Skin Irrit. 2 H315 ⚠ 3.3/2 Eye Irrit. 2 H319 <p>Acute Toxicity Estimate: ATE - Oral 1200 mg/kg bw ATE - Inhalation (Vapours) 3 mg/l</p>
>= 0.01% - < 0.05%	1,2-benzisothiazol- 3(2H)-one	Index number: 613-088-00-6 CAS: 2634-33-5 EC: 220-120-9	<ul style="list-style-type: none"> ⚠ 3.1/2/Inhal Acute Tox. 2 H330 ⚠ 3.2/2 Skin Irrit. 2 H315 ⚠ 3.3/1 Eye Dam. 1 H318 ⚠ 3.4.2/1 Skin Sens. 1 H317 ⚠ 3.1/4/Oral Acute Tox. 4 H302 ⚠ 4.1/A1 Aquatic Acute 1 H400 M=1. ⚠ 4.1/C2 Aquatic Chronic 2 H411 M=1. <p>Specific Concentration Limits: C >= 0,05%: Skin Sens. 1 H317</p>
>= 0.00015% - < 0.0015%	reaction mass of 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	Index number: 613-167-00-5 CAS: 55965-84-9	<ul style="list-style-type: none"> ⚠ 3.1/2/Inhal Acute Tox. 2 H330 ⚠ 3.1/2/Dermal Acute Tox. 2 H310 ⚠ 3.1/3/Oral Acute Tox. 3 H301 ⚠ 3.2/1C Skin Corr. 1C H314 ⚠ 3.3/1 Eye Dam. 1 H318 ⚠ 3.4.2/1A Skin Sens. 1A H317 ⚠ 4.1/A1 Aquatic Acute 1 H400 M=100. ⚠ 4.1/C1 Aquatic Chronic 1 H410 M=100. <p>EUH071 Specific Concentration Limits: C >= 0,6%: Skin Corr. 1C H314 0,06% <= C < 0.6%: Skin Irrit. 2 H315 C >= 0,6%: Eye Dam. 1 H318 0,06% <= C < 0.6%: Eye Irrit. 2 H319 C >= 0,0015%: Skin Sens. 1A H317</p>

Safety Data Sheet

ROXIDAN

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

None

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 (CO₂).

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.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities

Safety Data Sheet

ROXIDAN

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

aluminium powder (stabilised) - CAS: 7429-90-5

- OEL Type: ACGIH - TWA(8h): 1 mg/m³ - Notes: (R), A4 - Pneumoconiosis, LRT irr, neurotoxicity

2-butoxyethanol - CAS: 111-76-2

- OEL Type: EU - TWA(8h): 98 mg/m³, 20 ppm - STEL: 246 mg/m³, 50 ppm - Notes: Skin

- OEL Type: ACGIH - TWA(8h): 20 ppm - Notes: A3, BEI - Eye and URT irr

DNEL Exposure Limit Values

2-butoxyethanol - CAS: 111-76-2

Worker Professional: 89 mg/kg - Consumer: 89 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects

Worker Professional: 1091 mg/m³ - Consumer: 426 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects

Worker Professional: 125 mg/kg - Consumer: 75 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Professional: 98 mg/m³ - Consumer: 59 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Consumer: 26.7 mg/kg - Exposure: Human Oral - Frequency: Short Term, systemic effects

Worker Professional: 246 mg/m³ - Consumer: 147 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects

Consumer: 6.3 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

2-butoxyethanol - CAS: 111-76-2

Target: Fresh Water - Value: 8.8 mg/l

Target: Marine water - Value: 0.88 mg/l

Target: Freshwater sediments - Value: 34.6 mg/kg

Target: Marine water sediments - Value: 3.46 mg/kg

Target: Microorganisms in sewage treatments - Value: 463 mg/l

Target: Food chain - Value: 20 mg/kg

Target: Soil (agricultural) - Value: 2.33 mg/kg

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:

None

Appropriate engineering controls:

None

Safety Data Sheet

ROXIDAN

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes
Physical state:	Liquid	--	--
Colour:	various	--	--
Odour:	characteristic	--	--
Melting point/freezing point:	N.A.	--	--
Boiling point or initial boiling point and boiling range:	N.A.	--	--
Flammability:	N.A.	--	--
Lower and upper explosion limit:	N.A.	--	--
Flash point:	N.A.	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
pH:	8	--	--
Kinematic viscosity:	N.A.	--	--
Solubility in water:		--	--
Solubility in oil:	N.A.	--	--
Partition coefficient n-octanol/water (log value):	N.A.	--	--
Vapour pressure:	N.A.	--	--
Density and/or relative density:	1.13 kg/l	--	--
Relative vapour density:	N.A.	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

9.2. Other information

No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity

Safety Data Sheet

ROXIDAN

- 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:

ROXIDAN

- a) acute toxicity
 - Not classified
 - No data available for the product
- b) skin corrosion/irritation
 - Not classified
 - No data available for the product
- c) serious eye damage/irritation
 - Not classified
 - No data available for the product
- d) respiratory or skin sensitisation
 - Not classified
 - No data available for the product
- e) germ cell mutagenicity
 - Not classified
 - No data available for the product
- f) carcinogenicity
 - Not classified
 - No data available for the product
- g) reproductive toxicity
 - Not classified
 - No data available for the product
- h) STOT-single exposure
 - Not classified
 - No data available for the product
- i) STOT-repeated exposure
 - Not classified
 - No data available for the product
- j) aspiration hazard
 - Not classified
 - No data available for the product

Toxicological information of the main substances found in the product:

2-butoxyethanol - CAS: 111-76-2

- a) acute toxicity
 - ATE - Oral 1200 mg/kg bw
 - ATE - Inhalation (Vapours) 3 mg/l
 - Test: LD50 - Route: Oral - Species: Rat 615 mg/kg
 - Test: LD50 - Route: Skin - Species: Rabbit 405 mg/kg
 - Test: LC50 - Route: Inhalation - Species: Rat 2.2 mg/l - Duration: 4h

- 11.2. Information on other hazards
Endocrine disrupting properties:

Safety Data Sheet

ROXIDAN

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

SECTION 12: Ecological information

12.1. Toxicity

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

ROXIDAN

Not classified for environmental hazards

No data available for the product

2-butoxyethanol - CAS: 111-76-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 1474 mg/l - Duration h: 96

Endpoint: EC50 - Species: Algae 1550 mg/l - Duration h: 48

Endpoint: EC50 - Species: Daphnia 1840 mg/l - Duration h: 72

1,2-benzisothiazol-3(2H)-one - CAS: 2634-33-5

a) Aquatic acute toxicity:

Endpoint: EC10 - Species: Algae 0.04 mg/l - Duration h: 72 - Notes: (Selenastrum capricornutum) (OECD 201)

Endpoint: EC50 - Species: Algae 0.11 mg/l - Duration h: 72 - Notes: (Selenastrum capricornutum) (OECD 201) S2238

Endpoint: EC50 - Species: Daphnia 3.27 mg/l - Duration h: 48 - Notes: (OECD 202) S 2240

Endpoint: LC50 - Species: Fish 1.6 mg/l - Duration h: 96 - Notes: (Oncorhynchus mykiss) (OECD 203) S 2746

Endpoint: NOEC - Species: Daphnia 1.2 mg/l - Notes: 21 d (OECD 211) S 803

Endpoint: NOEC - Species: Fish 0.21 mg/l - Notes: 28 d (OECD 215) S 805

reaction mass of 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and

2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) - CAS: 55965-84-9

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia 0.1 mg/l - Duration h: 48 - Notes: daphnia magna

Endpoint: EC50 - Species: Algae 0.048 mg/l - Duration h: 72 - Notes: pseudokirchneriella subcapitata

Endpoint: EC50 - Species: Fish 0.22 mg/l - Duration h: 96 - Notes: oncorhynchus mykiss

Endpoint: NOEC - Species: Algae 0.00064 mg/l - Duration h: 48 - Notes: skeletonema costatum

Endpoint: NOEC - Species: Daphnia 0.004 mg/l - Duration h: 504 - Notes: daphnia magna

Endpoint: NOEC - Species: Fish 0.098 mg/l - Duration h: 672 - Notes: oncorhynchus mykiss

Endpoint: NOEC - Species: Algae 0.0012 mg/l - Duration h: 72 - Notes: pseudokirchneriella subcapitata

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

1,2-benzisothiazol-3(2H)-one - CAS: 2634-33-5

Test: Kow - Partition coefficient 0.7 - Notes: (n-octanol/water) OECD 117 Log Kow (HPLC method)

Test: BCF - Bioconcentration factor 6.95 - Notes: (fish) OECD 305

reaction mass of 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and

2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) - CAS: 55965-84-9

Not bioaccumulative - Test: BCF - Bioconcentration factor 3.16 - Notes: (calculated) S 1177

Not bioaccumulative - Test: Kow - Partition coefficient 0.71 - Notes: (n-octanol/water) S 5

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 $\geq 0.1\%$

Safety Data Sheet

ROXIDAN

- 12.7. Other adverse effects
None

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 or ID number
The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) 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. Maritime transport in bulk according to IMO instruments
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) 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)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 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 75

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)

Safety Data Sheet

ROXIDAN

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:

H261 In contact with water releases flammable gases.
H228 Flammable solid.
H331 Toxic if inhaled.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.
H310 Fatal in contact with skin.
H301 Toxic if swallowed.
H314 Causes severe skin burns and eye damage.
H410 Very toxic to aquatic life with long lasting effects.
EUH071 Corrosive to the respiratory tract.

Hazard class and hazard category	Code	Description
Water-react. 2	2.12/2	Substance or mixture which in contact with water emits flammable gas, Category 2
Flam. Sol. 1	2.7/1	Flammable solid, Category 1
Acute Tox. 2	3.1/2/Dermal	Acute toxicity (dermal), Category 2
Acute Tox. 2	3.1/2/Inhal	Acute toxicity (inhalation), Category 2
Acute Tox. 3	3.1/3/Inhal	Acute toxicity (inhalation), Category 3
Acute Tox. 3	3.1/3/Oral	Acute toxicity (oral), Category 3
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1C	3.2/1C	Skin corrosion, Category 1C
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. 1A	3.4.2/1A	Skin Sensitisation, Category 1A

Safety Data Sheet

ROXIDAN

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 2	4.1/C2	Chronic (long term) aquatic hazard, category 2

This safety data sheet has been completely updated in compliance to Regulation 2020/878.

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.
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.