

Safety Data Sheet dated 19/10/2022, version 2

SECTION 1: Identification of the substance/mixture and of the company/undertaking 1.1. Product identifier Mixture identification: Trade name: **MI-KU THERM** Trade code: N958 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 -Forlì back office T. +39 0543 401840 Competent person responsible for the safety data sheet: sicurezza.prodotti@sanmarcogroup.it 1.4. Emergency telephone number Technical information: San Marco Group spa / Forlì back office +39 0543 401840 (Monday -Friday 8.00-12.00 ; 13.30-17.30) **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. Adverse physicochemical, human health and environmental effects: No other hazards 2.2. Label elements Hazard pictograms: None Hazard statements: H412 Harmful to aquatic life with long lasting effects. Precautionary statements: P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P273 Avoid release to the environment. P501 Dispose of contents / container in accordance with national regulations. Special Provisions: EUH208 Contains 3-iodo-2-propynyl butylcarbamate. May produce an allergic reaction. 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 >= 0.1% Other Hazards: No other hazards

N958/2 Page n. 1 of 11



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	ldent. Numbe	er	Classification
>= 0.1% - < 0.25%	3-iodo-2-propynyl butylcarbamate	Index number: CAS: EC:	616-212-00-7 55406-53-6 259-627-5	 3.1/3/Inhal Acute Tox. 3 H331 3.1/4/Oral Acute Tox. 4 H302 3.9/1 STOT RE 1 H372 3.3/1 Eye Dam. 1 H318 3.4.2/1 Skin Sens. 1 H317 4.1/A1 Aquatic Acute 1 H400 M=10. 4.1/C1 Aquatic Chronic 1 H410 M=1.
	1,2-benzisothiazol- 3(2H)-one	Index number: CAS: EC:	613-088-00-6 2634-33-5 220-120-9	 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. Specific Concentration Limits: C >= 0,05%: Skin Sens. 1 H317
>= 0.01% - < 0.05%	pyrithione zinc	CAS: EC:	13463-41-7 236-671-3	 ♦ 3.7/1B Repr. 1B H360D ♦ 3.1/2/Inhal Acute Tox. 2 H330 ♦ 3.1/3/Oral Acute Tox. 3 H301 ♦ 3.9/1 STOT RE 1 H372 ♦ 3.3/1 Eye Dam. 1 H318 ♦ 4.1/A1 Aquatic Acute 1 H400 M=1000. ♦ 4.1/C1 Aquatic Chronic 1 H410 M=10. Acute Toxicity Estimate: ATE - Oral 221 mg/kg bw ATE - Inhalation (Dust/mist) 0,14 mg/l
>= 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: CAS:	613-167-00-5 55965-84-9	 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. EUH071 Specific Concentration Limits: C >= 0,6%: Skin Corr. 1C H314

N958/2 Page n. 2 of 11



	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
--	---

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

N958/2

Page n. 3 of 11



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. See also section 8 for recommended protective equipment. Advice on general occupational hygiene: Contamined 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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters No occupational exposure limit available **DNEL Exposure Limit Values** N.Á. **PNEC Exposure Limit Values** N.A. 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

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 N.A. __ ___ point:



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:	9		
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:	0.71 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
 - 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.

N958/2 Page n. 5 of 11



SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 Toxicological information of the product: **MI-KU THERM** 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: 3-iodo-2-propynyl butylcarbamate - CAS: 55406-53-6 a) acute toxicity: Test: LD50 - Route: Oral - Species: Rat 1056 mg/kg - Notes: famale Test: LD50 - Route: Oral - Species: Rat 1795 mg/kg - Notes: male Test: LC50 - Route: Inhalation Dust - Species: Rat 0.67 g/m3 - Duration: 4h Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg c) serious eye damage/irritation: Test: Eye Irritant - Species: Rabbit d) respiratory or skin sensitisation: Test: Skin Sensitization - Species: porcellino d'india i) STOT-repeated exposure: Route: Inhalation - Notes: Cat. 1 (larynx) pyrithione zinc - CAS: 13463-41-7 a) acute toxicity ATE - Oral 221 mg/kg bw ATE - Inhalation (Dust/mist) 0,14 mg/l 11.2. Information on other hazards Endocrine disrupting properties: No endocrine disruptor substances present in concentration >= 0.1%



SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment. $\operatorname{\mathsf{MI-KU}}$ THERM

The product is classified: Aquatic Chronic 3 - H412

3-iodo-2-propynyl butylcarbamate - CAS: 55406-53-6

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia 0.05 mg/l - Notes: 21 d (Daphnia magna) Endpoint: NOEC - Species: Fish 0.0084 mg/l - Notes: 35 d (Pimephales promeleas) Endpoint: NOEC - Species: Fish 0.049 mg/l - Duration h: 96 - Notes: (Rainbow trout) Endpoint: EC50 - Species: Algae 0.022 mg/l - Duration h: 72 - Notes: (Scenedesmus subspicatus)

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: Álgae 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

pyrithione zinc - CAS: 13463-41-7

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Algae 0.051 mg/l - Duration h: 72 - Notes: (Pseudokirchneriella subcapitata) (OECD 201) S 3023

Endpoint: EC50 - Species: Algae 0.013 mg/l - Duration h: 72 - Notes: (Skeletonema costatum) (ISO 10253) literature

Endpoint: EC50 - Species: Daphnia 0.051 mg/l - Duration h: 48 - Notes: (OECD 202) S 3024

Endpoint: LC50 - Species: Fish 0.0104 mg/l - Duration h: 96 - Notes: (Brachydanio rerio) (OECD 203) S 3026

Endpoint: NOEC - Species: Daphnia 0.0022 mg/l - Notes: 21 d (OECD 211) S 3025

Endpoint: NOEC - Species: Fish 0.00125 mg/l - Notes: 28 d (Brachydanio rerio) (OECD 215) S 3027

Endpoint: NOEC - Species: Algae 0.0149 mg/l - Duration h: 72 - Notes:

(Pseudokirchneriella subcapitata) (OECD 201) S 3023

Endpoint: NOEC - Species: Algae 0.000146 mg/l - Duration h: 96 - Notes: (Skeletonema costatum) (ISO 10253) literature

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

3-iodo-2-propynyl butylcarbamate - CAS: 55406-53-6

N958/2

Page n. 7 of 11



Biodegradability: Not persistent and Biodegradable

- 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 - Bioconcentrantion 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 - Bioconcentrantion 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 >= 0.1%
- 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
- 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 4 CLP) Regulation (EU) n. 605/2014 (ATP 5 CLP) Regulation (EU) n. 2015/1221 (ATP 7 CLP)

N958/2 Page n. 8 of 11



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 3** Restrictions related to the substances contained: **Restriction 75** 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: H331 Toxic if inhaled. H302 Harmful if swallowed. H372 Causes damage to organs (larynx) through prolonged or repeated exposure. H318 Causes serious eye damage. H317 May cause an allergic skin reaction. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.

H410 Very toxic to aquatic life with loi H330 Fatal if inhaled.

H315 Causes skin irritation.

H411 Toxic to aquatic life with long lasting effects.

H360D May damage the unborn child.

H301 Toxic if swallowed.

H372 Causes damage to organs through prolonged or repeated exposure.

H310 Fatal in contact with skin.

H314 Causes severe skin burns and eye damage.

EUH071 Corrosive to the respiratory tract.

H319 Causes serious eye irritation.

Hazard class and hazard category	Code	Description
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
Repr. 1B	3.7/1B	Reproductive toxicity, Category 1B
STOT RE 1	3.9/1	Specific target organ toxicity - repeated exposure, Category 1
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
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 2020/878. 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.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP: DNEL:	Classification, Labeling, Packaging. Derived No Effect Level.

N958/2 Page n. 10 of 11



EINECS: GefStoffVO: GHS:	European Inventory of Existing Commercial Chemical Substances. Ordinance on Hazardous Substances, Germany. Globally Harmonized System of Classification and Labeling of
IATA:	Chemicals. International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Áviation 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.