

**THERMO REFLECT®**



**SAFETY DATA SHEET**

(REACH Regulation (EC) No 1907/2006 - No 2020/878)

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING**

**1.1. Product Identifier**

Product Name: THERMO-REFLECT®

Product code: 003

**1.2. Relevant identified uses of the substance or mixture and discouraged uses**

**1.3. Information concerning the safety data sheet supplier**

ÉCO'PRISME - ZA Bayard - 3, Rue des Chambettes - 63570 AUZAT LA

COMBELLE Tel.: +33 4 22 52 18 20- Fax: +33 4 22 52 18 21 info@eco-prisme.com

www.eco-prisme.com

**1.4. Emergency number: +33 (0)1 45 42 59 59.**

Company/Organization: INRS / ORFILA <http://www.centres-antipoison.net>.

**HEADING 2: IDENTIFICATION OF HAZARDS**

**2.1. Classification of the substance or mixture**

**In accordance with Regulation (EC) No 1272/2008 and its adaptations.**

May cause an allergic reaction (EUH208).

This mixture does not present any physical danger. See instructions for other products in the room.

This mixture does not present any danger to the environment. No damage to the environment is known or foreseeable under normal conditions of use.

**2.2. Labeling elements**

**In accordance with Regulation (EC) No 1272/2008 and its adaptations.**

Additional labeling:

EUH208	Contains 1,2-BENZISOTHIAZOL-3(2H)-ONE. May cause an allergic reaction.
EUH208	Contains REACTION MASS OF 5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3-ONE AND 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1). May cause an allergic reaction.
EUH208	Contains OCTHILINONE (ISO). May cause an allergic reaction.
EUH208	Contains 2-METHYLISOTHIAZOL-3(2H)-ONE. May cause an allergic reaction.
EUH211	Watch out! Dangerous breathable droplets may form during spraying. Do not breathe in aerosols or mists.

Precautionary statements - General:

P101	In case of consultation with a doctor, keep the container or label available.
P102	Keep out of the reach of children.
P103	Read carefully and follow all instructions.

**2.3. Other hazards**

The mixture does not contain 'Substances of Very High Concern' (SVHC)  $\geq$  0.1% published by the European Chemicals Agency (ECHA) under Article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>. Refer to section 3 to identify the substances concerned.

The mixture does not meet the criteria for PBT or vPvB mixtures in accordance with Annex XIII to REACH Regulation (EC) No 1907/2006.

The mixture shall not contain substances  $\geq$  0,1 % with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

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## SECTION 3: COMPOSITION/INFORMATION ON COMPONENTS

## 3.2. Mixtures

## Membership:

Identification	(EC) 1272/2008	Note	%
INDEX: 022 006 00 2 CAS: 13463-67-7 EC: 236-675-5  TITANIUM DIOXIDE [AS A POWDER CONTAINING 1 % OR MORE OF PARTICLES WITH A DIAMETER <= 10 µM]	GHS08 Wng Ca. 2, H351	[1] [10]	10 <= x % < 25
CAS: 471-34-1 EC: 207-439-9  CALCIUM CARBONATE		[1]	2.5 <= x % < 10
CAS: 13463-67-7 EC: 236-675-5 REACH: 01-2119489379-17  TITANIUM DIOXIDE [AS A POWDER CONTAINING 1 % OR MORE OF PARTICLES WITH A DIAMETER <= 10 µM]		[1]	0 <= x % < 2.5
CAS: 100-79-8 EC: 202-888-7  2,2-DIMETHYL-1,3-DIOXOLANE-4-YLMETH ANOL	GHS07 Wng Eye Irritates. 2, H319		0 <= x % < 2.5
INDEX: 613-088-00-6 CAS: 2634-33-5 EC: 220-120-9  1,2-BENZISOTHIAZOL-3(2H)-ONE	GHS05, GHS07 GHS09 Dgr Acute Tox. 4, H302 Skin Irritates. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 M Acute = 1		0 <= x % < 2.5
INDEX: 613-167-00-5 CAS: 55965-84-9  REACTION MASS OF 5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3- NEB AND DE 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1)	GHS06, GHS05 GHS09 Dgr Acute Tox. 3 H301 Acute Tox. 2, H310 Skin Corr. 1C, H314 Skin Sens. 1A, H317 Eye Dam. 1, H318 Acute Tox. 2, H330 Aquatic Acute 1, H400 M Acute = 100 Aquatic Chronic 1, H410 M Chronic = 100 UH:071	B	0 <= x % < 2.5

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INDEX: 613-112-00-5 CAS: 26530-20-1 EC: 247-761-7  OCTHILINONE (ISO)	GHS06, GHS05 GHS09 Dgr Acute Tox. 3 H301 Acute Tox. 3, H311 Skin Corr. 1, H314 Skin Sens. 1A, H317 Acute Tox. 2, H330 Aquatic Acute 1, H400 M Acute = 100 Aquatic Chronic 1, H410 M Chronic = 100 UH:071	[1]	0 <= x % < 2.5
INDEX: 613 326 00 9 CAS: 2682-20-4 EC: 220-239-6  2-METHYLISOTHIAZOL-3(2H)-ONE	GHS06, GHS05 GHS09 Dgr Acute Tox. 3 H301 Acute Tox. 3, H311 Skin Corr. 1B, H314 Skin Sens. 1A, H317 Eye Dam. 1, H318 Acute Tox. 2, H330 Aquatic Acute 1, H400 M Acute = 10 Aquatic Chronic 1, H410 M Chronic = 1 UH:071		0 <= x % < 2.5

## Specific concentration limits and acute toxicity estimation

Identification	Specific concentration limits	ETA
CAS: 100-79-8 EC: 202-888-7  2,2-DIMETHYL-1,3-DIOXOLANE-4-YLMETHANOL		oral: ETA = 7 mg/kg bw
INDEX: 613-088-00-6 CAS: 2634-33-5 EC: 220-120-9  1,2-BENZISOTHIAZOL-3(2H)-ONE	Skin Sens. 1: H317 C>= 0.05%	
INDEX: 613-167-00-5 CAS: 55965-84-9  REACTION MASS OF 5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3-NEB AND DE 2-METHYL-2H-ISOTHIAZOL-3-ONE (3:1)	Skin Corr. 1C: H314 C>= 0.6% Skin Irritates. 2: H315 0.06% <= C < 0.6% Eye Dam. 1: H318 C>= 0.6% Eye Irritates. 2: H319 0.06% <= C < 0.6% Skin Sens. 1A: H317 C>= 0.0015%	
INDEX: 613-112-00-5 CAS: 26530-20-1 EC: 247-761-7  OCTHILINONE (ISO)	Skin Sens. 1A: H317 C>= 0.0015%	inhalation: ETA = 0.27 mg/l 4h (dust/fog) dermal: ETA=311 mg/kg bw oral: ETA = 125 mg/kg bw
INDEX: 613 326 00 9 CAS: 2682-20-4 EC: 220-239-6  2-METHYLISOTHIAZOL-3(2H)-ONE	Skin Sens. 1A: H317 C>= 0.0015%	

## Component Information:

(Full text of H sentences: see section 16)

[1] Substance for which there are exposure limit values at the workplace.

Note 10: The classification as carcinogenic by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of particles or which is incorporated in particles with an aerodynamic diameter = 10 µm.

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**HEADING 4: FIRST AID**

In general, if in doubt or if symptoms persist, always seek medical attention.

NEVER have an unconscious person ingest anything.

**4.1. Description of first aid measures**

**If inhaled:**

In case of allergic manifestation, consult a doctor.

**In case of skin contact:**

In case of allergic manifestation, consult a doctor.

**If swallowed:**

Seek medical attention by showing the label.

**4.2. Main symptoms and effects, acute and delayed**

No data is available.

**4.3. Indication of any immediate medical care and special treatment required**

No data is available.

**HEADING 5: FIRE-FIGHTING MEASURES**

Non-flammable.

**5.1. Means of extinction**

**Appropriate means of extinguishing**

In case of fire, use:

- versatile ABC powders

**5.2. Particular hazards arising from the substance or mixture**

A fire will often produce thick black smoke. Exposure to decomposition products may involve health risks.

Do not breathe fumes.

In the event of fire, the following may occur:

- carbon monoxide (CO)

- carbon dioxide (CO<sub>2</sub>)

**5.3. Advice to firefighters**

No data is available.

**SECTION 6: MEASURES TO BE TAKEN IN THE EVENT OF ACCIDENTAL DISPERSION**

**6.1. Personal precautions, protective equipment and emergency procedures**

Refer to the protective measures listed in sections 7 and 8.

**For rescue workers**

Responders will be provided with appropriate personal protective equipment (Refer to Section 8).

**6.2. Precautions for environmental protection**

Contain and collect leaks with non-combustible absorbent materials, e.g. sand, soil, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any penetration into sewers or waterways.

**6.3. Containment and cleaning methods and equipment**

Clean preferably with detergent, avoid use of solvents.

**6.4. Reference to other headings**

No data is available.

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**SECTION 7: HANDLING AND STORAGE**

The requirements for storage rooms shall apply to workshops where the mixture is handled.

**7.1. Precautions for safe handling**

Wash hands after each use.

Remove and wash contaminated clothing before reuse.

**Fire prevention:**

Deny access to unauthorized persons.

**Recommended equipment and procedures:**

For individual protection, see section 8.

Observe label precautions and labor protection regulations.

**Prohibited equipment and procedures:**

Smoking, eating and drinking are forbidden in the premises where the mixture is used.

**7.2. Conditions for safe storage, including possible incompatibilities**

No data is available.

**Storage**

Keep out of the reach of children.

**Packaging**

Always store in packages of the same material as the original one.

Recommended packaging types:

- Pots

Suitable packaging materials:

- Plastic

Inappropriate packaging materials:

- Steel

**7.3. Specific end-use(s)**

No data is available.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters**

**Occupational exposure limit values:**

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010):

CASE	TWA:	STEL:	Ceiling:	Definition:	Criteria:
13463 67 7	10 mg/m3			A4	
471-34-1	10 mg/m3	-	-	-	-
13463 67 7	10 mg/m3			A4	

- Germany - AGW (BAuA - TRGS 900, 08/08/2019):

CASE	VME:	VME:	Overtaking	Remarks
26530-20-1		0.05 E mg/m <sup>3</sup>		2(I)

- France (INRS - ED984 / 2020-1546):

CASE	VME-ppm:	MEV-mg/m3:	ELV-ppm:	ELV-mg/m3:	Notes:	TMP NO:
13463 67 7	-	10	-	-	-	-
471-34-1	-	10	-	-	-	-
13463 67 7	-	10	-	-	-	-

- Spain (Instituto Nacional de Seguridad e Higiene en el Trabajo (INSHT), 2019):

CASE	TWA:	STEL:	Ceiling:	Definition:	Criteria:
13463 67 7	10 mg/m <sup>3</sup>				
471-34-1	10 mg/m3				
13463 67 7	10 mg/m <sup>3</sup>				

**8.2. Exposure controls**

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**Personal protective measures, such as personal protective equipment**

Personal protective equipment (PPE) mandatory pictogram(s):



Use clean and properly maintained personal protective equipment.

Store personal protective equipment in a clean place away from the work area.

When using, do not eat, drink or smoke. Remove and wash contaminated clothing before reuse. Ensure adequate ventilation, especially in enclosed areas.

**- Eye/face protection** Avoid

contact with the eyes.

Use eye guards designed to protect against spills.

Before any handling, it is necessary to wear safety glasses complying with the NF EN166 standard.

**- Hand protection**

Wear suitable protective gloves in case of prolonged or repeated contact with the skin.

Use suitable protective gloves resistant to chemical agents according to EN ISO 374-1.

The selection of gloves must be made according to the application and the duration of use at the workstation.

The protective gloves must be chosen according to the work station: other chemicals that can be handled, physical protection required (cut, pricking, thermal protection), dexterity required.

Type of gloves recommended:

- Natural latex
- Nitrile Rubber (butadiene-acrylonitrile copolymer (NBR))
- PVC (Polyvinyl chloride)
- Butyl rubber (isobutylene-isoprene copolymer)

**- Protection of the body**

The staff shall wear regularly washed working clothes.

After contact with the product, all soiled parts of the body should be washed.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1. Information on essential physical and chemical properties Physical**

**state**

Physical State: Viscous Liquid.

**Color**

Unspecified

**Smell**

Olfactory threshold: Not specified.

**Melting point**

Melting point/interval: Not specified.

**Freezing point**

Freezing point/interval: Not specified.

**Boiling point or initial boiling point and boiling range**

Boiling point/range: Not specified.

**Flammability**

Flammability (solid, gas): Not specified.

**Lower and upper explosion limits**

Explosion hazards, lower explosive limit (%): Not specified.

Explosion hazards, upper explosive limit (%): Not specified.

**Flash point**

Flash point interval: Not concerned.

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**Autoignition temperature**

Auto-ignition point/interval: Not specified.

**Decomposition temperature**

Decomposition point/interval: Not specified.

**pH**

pH: Not specified.  
Weak base.

pH in aqueous solution: Not specified.

**Kinematic Viscosity**

Viscosity: Not specified.

**Solubility**

Water solubility: Dilutable.

Liposolubility: Not specified.

**Partition coefficient n-octanol/water (log value)**

Partition coefficient n-octanol/water: Not specified.

**Vapor pressure**

Vapor pressure (50°C): Not concerned.

**Density and/or relative density**

Density: < 1

**Relative vapor density**

Steam density: Not specified.

**9.2. Other information**

No data is available.

**9.2.1. Information on physical hazard classes**

No data is available.

**9.2.2. Other safety features**

No data is available.

**HEADING 10: STABILITY AND REACTIVITY**

**10.1. Reactivity**

No data is available.

**10.2. Chemical stability**

This mixture is stable under the recommended handling and storage conditions in section 7.

**10.3. Possibility of dangerous reactions**

No data is available.

**10.4. Conditions to be avoided**

Avoid:

- frost

**10.5. Incompatible materials**

No data is available.

**10.6. Hazardous decomposition products**

Thermal decomposition can release/form:

- carbon monoxide (CO)

- carbon dioxide (CO<sub>2</sub>)

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**SECTION 11: TOXICOLOGICAL INFORMATION**

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

No data is available.

**11.1.1. Substances**

**Acute toxicity:**

OCTHILINONE (ISO) (CAS: 26530-20-1)	
For oral use:	LD50 = 125 mg/kg
For cutaneous use:	LD50 = 311 mg/kg
By inhalation (Dust/fog):	LC50 = 0.27 mg/l Duration of exposure: 4 h
2,2-DIMETHYL-1,3-DIOXOLANE-4-YLMETHANOL (CAS: 100-79-8)	
For oral use:	LD50 = 7 mg/kg Species: Rat
For cutaneous use:	LD50 > 2000 mg/kg Species: Rat
By inhalation (Dust/fog):	LC50 > 5.11 mg/l Species: Rat

**11.1.2. Mixing**

**Respiratory or cutaneous sensitization:**

Contains at least one sensitizing substance. May cause an allergic reaction.

**IARC (International Agency for Research on Cancer) monograph(s):**

CAS 13463-67-7: IARC Group 2B: The agent may be carcinogenic to humans.

CAS 13463-67-7: IARC Group 2B: The agent may be carcinogenic to humans.

**Substance(s) described in an INRS (Institut National de Recherche et de Sécurité) toxicological data sheet:**

- 1,2-Benzisothiazol-3(2H)-one (CAS 2634-33-5): See toxicological data sheet No 243.
- 2-Methyl-4-isothiazolin-3-one (CAS 2682-20-4): See toxicological data sheet No 290.
- Mixture of 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one (3:1) (CAS 55965-84-9): See toxicological data sheet No. 290.
- Titanium dioxide (CAS 13463-67-7): See toxicological data sheet No 291.

**HEADING 12: ECOLOGICAL INFORMATION**

**12.1. Toxicity**

**12.1.1. Substances**

2,2-DIMETHYL-1,3-DIOXOLANE-4-YLMETHANOL (CAS: 100-79-8)	
Toxicity to fish:	LC50 = 16700 mg/l Species: Pimephales promelas Duration of exposure: 96 h
Crustacean toxicity:	EC50 = 14400 mg/l Species: Others Duration of exposure: 96 h

**12.1.2. Mixtures**

No aquatic toxicity information is available on the mixture.



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**12.2. Persistence and degradability**

**12.2.1. Substances**

2,2-DIMETHYL-1,3-DIOXOLANE-4-YLMETHANOL (CAS: 100-79-8)

Biodegradation: No data on degradability are available, the substance is considered not to degrade rapidly.

TITANIUM DIOXIDE [IN THE FORM OF A POWDER CONTAINING 1 % OR MORE OF PARTICLES WITH A DIAMETER <= 10 µM] (CAS: 13463-67-7)

Biodegradation: No data on degradability are available, the substance is considered not to degrade rapidly.

**12.3. Bioaccumulation potential**

No data is available.

**12.4. Mobility in soil**

No data is available.

**12.5. Results of the PBT and vPvB evaluations**

No data is available.

**12.6. Endocrine disrupting properties**

No data is available.

**12.7. Other adverse effects**

No data is available.

**SECTION 13: DISPOSAL CONSIDERATIONS**

Appropriate management of the waste from the mixture and/or its container shall be determined in accordance with the provisions of Directive 2008/98/EC.

**13.1. Waste treatment methods**

Do not discharge into sewers or waterways.

**Waste:**

Waste management is carried out without endangering human health or harming the environment, and in particular without creating a risk to water, air, soil, wildlife or plants.

Recycle or dispose of in accordance with local requirements, preferably by a collector or an approved company.

Do not contaminate soil or water with waste, do not dispose of it in the environment.

**Soiled packaging:**

Empty the container completely. Keep the label on the container.

To be given to an authorized disposer.

**HEADING 14: TRANSPORT INFORMATION**

Exempted from classification and labeling Transport .

**14.1. UN number or identification number**

-

**14.2. Official UN Transport Designation**

-

**14.3. Transport hazard class(es)**

-

**14.4. Packing group**

-

**14.5. Environmental hazards**

-

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**14.6. Special precautions for the user**

-

**HEADING 15: REGULATORY INFORMATION**

**15.1. Safety, health and environmental regulations/legislation specific to the substance or mixture**

- **Information on classification and labeling in section 2:** The following regulations have been taken into account:

- Regulation (EC) No 1272/2008 as amended by Regulation (EU) No 2021/643 (ATP 16)
- Regulation (EC) No 1272/2008 as amended by Regulation (EU) No 2021/849 (ATP 17)

- **Packaging information:**

No data is available.

- **Special provisions:** No data are available.

**15.2. Chemical safety assessment**

No data is available.

**SECTION 16: OTHER INFORMATION**

As the user's working conditions are not known to us, the information given in this safety data sheet is based on the state of our knowledge and on national and Community regulations.

The mixture must not be used for any purpose other than those specified in section 1 without written instructions for handling.

It is always the responsibility of the user to take all necessary measures to meet the requirements of local laws and regulations.

The information given in this safety data sheet should be considered as a description of the safety requirements for this mixture and not as a guarantee of its properties.

**Phrase(s) mentioned in section 3:**

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal from skin contact.
H311	Toxic by skin contact.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause skin allergy.
H318	Causes serious eye damage.
H319	Causes severe eye irritation.
H330	Fatal by inhalation.
H351	May cause cancer.
H400	Very toxic to aquatic organisms.
H410	Very toxic to aquatic organisms, has long-term adverse effects.
EUH071	Corrosive to the respiratory tract.

**Abbreviations:**

LD50: The dose of a test substance resulting in a 50% lethality within a given period.

LC50: The concentration of a test substance resulting in a lethality of 50 % over a given period.

EC50: The effective concentration of the substance which causes a maximum 50% reaction.

REACH: Registration, Evaluation, Authorization and Restriction of Chemicals.

ETA: Acute Toxicity Estimate

PC: Body Weight

STEL: Short-term exposure limit

TWA: Time Weighted Averages

TMP: Occupational Disease Tables (France)

ELV: Exposure Limit Value.

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VME: Mean Exposure Value.

ADR.: European Agreement concerning the International Carriage of Dangerous Goods by Road.

IMDG: International Maritime Dangerous Goods.

IATA: International Air Transport Association.

ICAO: International Civil Aviation Organization.

RID: Regulations concerning the International carriage of dangerous goods by rail.

PBT: Persistent, bioaccumulative and toxic.

vPvB: Very persistent and very bioaccumulative.

SVHC: Substance of Very High Concern.