



# SAFETY DATA SHEET

CLIMATECOOLER FLEX TOPCOAT

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

### 1.1 Product identifier

Product name : CLIMATECOOLER FLEX TOPCOAT  
Product description : Flexible heat reflecting water-borne modified acrylate paint.

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

Recommended use: Painting work

### 1.3 Details of the supplier of the safety data sheet

#### Manufacturer or Distributor

Tikkurila Oyj  
P.O. Box 53  
FI-01301 VANTAA  
FINLAND  
Telephone +358 20 191 2000

e-mail address of person responsible for this SDS : Tikkurila Oyj,  
Product Safety,  
e-mail: productsafety@tikkurila.com

### 1.4 Emergency telephone number

Telephone number : 112  
(24h)

#### Supplier or Manufacturer

Telephone number : Tikkurila Oyj  
+358 20 191 2000 (GMT +2) Mon-Fri 8-16

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]  
Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

### 2.2 Label elements

Signal word : No signal word.

Hazard statements : H412 - Harmful to aquatic life with long lasting effects.

#### Precautionary statements

General : Not applicable.

Prevention : P273 - Avoid release to the environment.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Supplemental label elements : Contains 1,2-benzisothiazol-3(2H)-one (BIT), 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) (C(M)IT/MIT (3:1)) and 2-octyl-2H-isothiazol-3-one (OIT). May produce an allergic reaction.

Wear protective gloves.

### Treated articles

This product contains a biocidal product for the preservation of the product during storage. 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) (C(M)IT/MIT (3:1)).

### 2.3 Other hazards

Other hazards which do not result in classification : None known.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification Regulation (EC) No. 1272/2008 [CLP]	Notes
2-(2-butoxyethoxy)ethanol	REACH #: 01-2119475104-44 EC: 203-961-6 CAS: 112-34-5 Index: 603-096-00-8	≤3	Eye Irrit. 2, H319	-
terbutryn	EC: 212-950-5 CAS: 886-50-0	≤0.022	Acute Tox. 4, H302 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)	-
bronopol	EC: 200-143-0 CAS: 52-51-7 Index: 603-085-00-8	≤0.1	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 (M=10)	-
1,2-benzisothiazol-3(2H)-one (BIT)	EC: 220-120-9 CAS: 2634-33-5	<0.05	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 2, H411	-
2-octyl-2H-isothiazol-3-one (OIT)	EC: 247-761-7 CAS: 26530-20-1 Index: 613-112-00-5	≤0.012	Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)	-
zinc pyrithione	REACH #: 01-2119511196-46 EC: 236-671-3 CAS: 13463-41-7	≤0.012	Acute Tox. 3, H301 Acute Tox. 3, H331 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=10)	-
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) (C(M)IT/MIT (3:1))	CAS: 55965-84-9	<0.0015	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) <b>See Section 16 for the full text of the H statements declared above.</b>	-

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Notes, if applicable, refer to Notes given in Annex VI of 1272/2008/EC.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

<b>General</b>	: In all cases of doubt, or when symptoms persist, seek medical attention. Show this safety data sheet or label to the doctor if possible.
<b>Eye contact</b>	: Check for and remove any contact lenses. Immediately flush eyes with plenty of lukewarm water, keeping eyelids open. Continue to rinse for at least 10 minutes.
<b>Inhalation</b>	: Remove to fresh air.
<b>Skin contact</b>	: Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
<b>Ingestion</b>	: If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious). If significant amounts have been swallowed or if symptoms persist, seek medical attention.

### 4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

Contains:

1,2-benzisothiazol-3(2H)-one (BIT)

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) (C(M)IT/MIT (3:1))

2-octyl-2H-isothiazol-3-one (OIT)

May produce an allergic reaction.

### 4.3 Indication of any immediate medical attention and special treatment needed

None.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: Use an extinguishing agent suitable for the surrounding fire. Recommended: Alcohol resistant foam, CO <sub>2</sub> , powders or water spray/mist.
<b>Unsuitable extinguishing media</b>	: Do not use a direct water jet that could spread the fire.

### 5.2 Special hazards arising from the substance or mixture

<b>Hazards from the substance or mixture</b>	: This product is not classified as flammable. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
<b>Hazardous combustion products</b>	: When exposed to high temperatures, hazardous decomposition products may be produced, such as carbon monoxide and dioxide, smoke, oxides of nitrogen etc.

### 5.3 Advice for firefighters

<b>Special protective actions for fire-fighters</b>	: Use water spray to keep fire-exposed containers cool. This material is hazardous to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
<b>Special protective equipment for fire-fighters</b>	: Appropriate breathing apparatus may be required.

## SECTION 6: Accidental release measures

<b>6.1 Personal precautions, protective equipment and emergency procedures</b>	: Refer to protective measures listed in sections 7 and 8.
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<b>6.2 Environmental precautions</b>	: Hazardous to aquatic environment. Do not allow to enter drains, water courses or soil.
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- 6.3 Methods and materials for containment and cleaning up** : Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Preferably clean with water or detergent. Avoid using solvents.
- 6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

- 7.1 Precautions for safe handling** : Skin contact with the product and exposure to spray mist and vapor should be avoided. Avoid inhalation of dust from sanding. See Section 8 for information on appropriate personal protective equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled and stored. Wash hands before breaks and immediately after handling the product. Avoid release to the environment.
- 7.2 Conditions for safe storage, including any incompatibilities** : Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Keep container tightly closed. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Recommended storage temperature is +5°C ...+25°C. Do not allow to freeze. Store in accordance with local regulations.
- 7.3 Specific end use(s)** : None.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
(2-butoxyethoxy)ethanol	<b>EU OEL (Europe, 12/2017). Notes: list of indicative occupational exposure limit values</b> TWA: 67.5 mg/m <sup>3</sup> 8 hours. TWA: 10 ppm 8 hours. STEL: 101.2 mg/m <sup>3</sup> 15 minutes. STEL: 15 ppm 15 minutes.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

#### DNELs/DMELs

No DNELs/DMELs available.

#### PNECs

No PNECs available.

### 8.2 Exposure controls

#### Appropriate engineering controls

Provide adequate ventilation. Comply with the health and safety at work laws.

#### Individual protection measures

**Eye/face protection** : Safety eyewear should be used when there is a likelihood of exposure. Use safety eyewear (EN166), especially during spray-application.

<b>Hand protection</b>	: Wear protective gloves. Gloves should be replaced regularly and if there is any sign of damage to the glove material. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Recommended glove material (EN374): > 8 hours (breakthrough time): nitrile rubber Not recommended: PVA gloves
<b>Skin protection</b>	: Wear appropriate personal protective clothing to prevent skin contact.
<b>Respiratory protection</b>	: If ventilation during spray-application is inadequate, use respirators with combination filter AP, gas/dust filter (EN405:2001). Wear a respirator with type P2 filter during sanding (EN149:2001). Be sure to use an approved/certified respirator or equivalent. Check that mask fits tightly and change filter regularly.
<b>Environmental exposure controls</b>	: For information regarding environmental protection measures, please refer to section 13 for waste handling, section 7 for handling and storage and section 1.2 for relevant identified uses of the substance or mixture and uses advised against.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	: Liquid.
<b>Color</b>	: Various
<b>Odor</b>	: Mild.
<b>Odor threshold</b>	: Not relevant for the hazard assessment of the product.
<b>pH</b>	: Not relevant for the hazard assessment of the product.
<b>Melting point/freezing point</b>	: 0°C (water)
<b>Initial boiling point and boiling range</b>	: 100°C (water)
<b>Flash point</b>	: Not available.
<b>Evaporation rate</b>	: Not relevant due to the nature of the product.
<b>Flammability (solid, gas)</b>	: Not applicable. Product is a liquid.
<b>Upper/lower flammability or explosive limits</b>	: No flammable ingredients present.
<b>Vapor pressure</b>	: 2 kPa [room temperature] (water)
<b>Vapor density</b>	: Not relevant for the hazard assessment of the product.
<b>Density</b>	: 1.3 to 1.4 g/cm <sup>3</sup>
<b>Solubility(ies)</b>	: Miscible in water.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not relevant due to the nature of the product.
<b>Decomposition temperature</b>	: Not relevant for the hazard assessment of the product.
<b>Viscosity</b>	: Not relevant for the hazard assessment of the product.
<b>Explosive properties</b>	: No explosive ingredients present.
<b>Oxidizing properties</b>	: No oxidizing ingredients present.

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: See Section 10.5.
<b>10.2 Chemical stability</b>	: Stable under recommended storage and handling conditions (see Section 7).
<b>10.3 Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid** : Avoid extreme heat and freezing.

**10.5 Incompatible materials** : Keep away from the following materials to prevent strong exothermic reactions:  
oxidizing agents  
strong acids  
strong alkalis

**10.6 Hazardous decomposition products** : When exposed to high temperatures, hazardous decomposition products may be produced, such as carbon monoxide and dioxide, smoke, oxides of nitrogen etc.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

There is no test data available on the product itself.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Long term exposure to spray mist may produce respiratory tract irritation. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Bronopol	LD50 Oral	Rat	342 mg/kg	-
1,2-benzisothiazol-3(2H)-one (BIT)	LD50 Oral	Rat	1020 mg/kg	-
2-octyl-2H-isothiazol-3-one (OIT)	LD50 Dermal	Rabbit	690 mg/kg	-
	LD50 Oral	Rat	550 mg/kg	-
zinc pyrithione	LD50 Oral	Rat	269 mg/kg	-
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) (C(M)IT/MIT (3:1))	LD50 Oral	Rat	53 mg/kg	-

Not classified.

#### Irritation/Corrosion

Not classified.

#### Sensitization

The product is not classified as sensitizing by skin contact, but it contains following preservatives or other biocides which may produce an allergic reaction:

1,2-benzisothiazol-3(2H)-one (BIT)

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) (C(M)IT/MIT (3:1))

2-octyl-2H-isothiazol-3-one (OIT)

terbutryn

#### Mutagenicity

Not classified.

#### Carcinogenicity

Not classified.

#### Reproductive toxicity

Not classified.

#### Teratogenicity

Not classified.

#### Specific target organ toxicity (single exposure)

Not classified.

#### Specific target organ toxicity (repeated exposure)

Not classified.

### Aspiration hazard

Not classified.

## SECTION 12: Ecological information

Ecological testing has not been conducted on this product.  
Do not allow to enter drains, water courses or soil.

The product is classified as environmentally hazardous according to Regulation (EC) 1272/2008.  
Harmful to aquatic life with long lasting effects.

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
terbutryn	Acute EC50 2 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
bronopol	Acute EC50 0.068 mg/l	Algae - Anabaena flos aqua	72 hours
1,2-benzisothiazol-3(2H)-one (BIT)	Acute EC50 0.36 mg/l	Algae - Skeletonema costatum	72 hours
	Acute LC50 0.74 mg/l	Fish	96 hours
2-octyl-2H-isothiazol-3-one (OIT)	EC50 0.32 mg/l	Daphnia - Daphnia magna	48 hours
	LC50 0.047 mg/l	Fish - Oncorhynchus mykiss	96 hours
zinc pyrithione	EC50 0.0082 mg/l	Daphnia	48 hours
	LC50 0.0026 mg/l	Fish - Pimephales promelas	96 hours
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) (C(M)IT/MIT (3:1))	Acute EC50 0.379 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 0.16 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 0.19 mg/l	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 0.0012 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Chronic NOEC 0.004 mg/l	Daphnia - Daphnia magna	21 days

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
(2-butoxyethoxy)ethanol	-	92 % - 28 days	-	-
Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability	
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) (C(M)IT/MIT (3:1))	-	-	Readily	
2-(2-butoxyethoxy)ethanol	-	-	Readily	



### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	Bioconcentration factor [BCF]	Potential
<input checked="" type="checkbox"/> zinc pyrithione	0.9	11	low
2-octyl-2H-isothiazol-3-one (OIT)	2.45	-	low
bronopol	0.18	-	low
terbutryn	3.74	-	low
2-(2-butoxyethoxy)ethanol	1	<3	low

### 12.4 Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Mobility : Not available.

### 12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : Not available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Methods of disposal :  Gather residues into waste containers. Liquid residue and cleaning liquids are hazardous waste and must not be emptied into drains or sewage system, but handled in accordance with national regulations. Product residues should be left at special companies which have permission for gathering this kind of wastes.

#### European waste catalogue (EWC)

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

#### Packaging

Methods of disposal : Empty packaging should be recycled or disposed of in accordance with national regulations.

Special precautions : No additional information.

## SECTION 14: Transport information

This product is not regulated for carriage according to ADR/RID, IMDG, IATA.

	ADR/RID	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-



<b>14.3 Transport hazard class(es)</b>	-	-	-
<b>14.4 Packing group</b>	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	No.

**Additional information**

**IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

EU Regulation (EC) No. 1907/2006 (REACH)

Other EU regulations

Europe inventory : Not determined.

**15.2 Chemical Safety Assessment** : This product contains substances for which Chemical Safety Assessments are still required.

**SECTION 16: Other information**

✔ Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DMEL = Derived Minimal Effect Level  
 DNEL = Derived No Effect Level  
 EUH statement = CLP-specific Hazard statement  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number  
 vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Classification	Justification
Aquatic Chronic 3, H412	Calculation method

**Full text of abbreviated H statements** :

✔H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

**Full text of classifications  
[CLP/GHS]**

: Acute Tox. 3, H301 ACUTE TOXICITY (oral) - Category 3  
 Acute Tox. 3, H311 ACUTE TOXICITY (dermal) - Category 3  
 Acute Tox. 3, H331 ACUTE TOXICITY (inhalation) - Category 3  
 Acute Tox. 4, H302 ACUTE TOXICITY (oral) - Category 4  
 Acute Tox. 4, H312 ACUTE TOXICITY (dermal) - Category 4  
 Aquatic Acute 1, H400 AQUATIC HAZARD (ACUTE) - Category 1  
 Aquatic Chronic 1, H410 AQUATIC HAZARD (LONG-TERM) - Category 1  
 Aquatic Chronic 2, H411 AQUATIC HAZARD (LONG-TERM) - Category 2  
 Aquatic Chronic 3, H412 AQUATIC HAZARD (LONG-TERM) - Category 3  
 Eye Dam. 1, H318 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1  
 Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2  
 Skin Corr. 1B, H314 SKIN CORROSION/IRRITATION - Category 1B  
 Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2  
 Skin Sens. 1, H317 SKIN SENSITIZATION - Category 1  
 STOT SE 3, H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3

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Version : 1.01

**Notice to reader**

**This Safety Data Sheet is prepared in accordance with Annex II (EU) No 830/2015 to Regulation (EC) No 1907/2006 (REACH). The information contained in this Safety Data Sheet is based on the present state of knowledge and current EU and national legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.**