



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), 2-octyl-2H-isothiazol-3-one (OIT) and reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (C(M)IT/MIT (3:1)). May produce an allergic reaction.

Treated articles

This product contains a biocidal product for the preservation of the product during storage. Contains BIT, C(M)IT/MIT (3:1). Wear protective gloves.

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
<input checked="" type="checkbox"/> 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	-
bronopol	REACH #: 01-2119980938-15 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	-
zinc pyrithione	REACH #: 01-2119511196-46 EC: 236-671-3 CAS: 13463-41-7 Index: 613-333-00-7	<0.01	Acute Tox. 3, H301 Acute Tox. 2, H330 Eye Dam. 1, H318 Repr. 1B, H360D STOT RE 1, H372 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410 (M=10)	-
terbutryn	EC: 212-950-5 CAS: 886-50-0	<0.016	Acute Tox. 4, H302 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)	-
2-octyl-2H-isothiazol-3-one (OIT)	EC: 247-761-7 CAS: 26530-20-1 Index: 613-112-00-5	<0.0015	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100) EUH071	-
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (C(M)IT/MIT (3:1))	CAS: 55965-84-9 Index: 613-167-00-5	<0.001	Acute Tox. 3, H301 Acute Tox. 2, H310 Acute Tox. 2, H330 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100) EUH071 See Section 16 for the full text of the H statements declared above.	-

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

Specific concentration limits and ATE-values

Ingredient name, Specific concentration limits, ATE value

1,2-benzisothiazol-3(2H)-one (BIT)
Skin Sens. 1, H317: C ≥ 0,05 %

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (C(M)IT/MIT (3:1))

Skin Corr. 1C, H314: C ≥ 0,6 %
Skin Irrit. 2, H315: 0,06 % ≤ C < 0,6 %
Eye Dam. 1, H318: C ≥ 0,6 %
Eye Irrit. 2, H319: 0,06 % ≤ C < 0,6 %
Skin Sens. 1A, H317: C ≥ 0,0015 %

2-octyl-2H-isothiazol-3-one (OIT)
Skin Sens. 1A, H317: C ≥ 0,0015 %
Inhalation: ATE = 0.27 mg/L (dusts/mists)
Dermal: ATE = 311 mg/kg bw
Oral: ATE = 125 mg/kg bw

zinc pyrithione
Inhalation: ATE = 0.14 mg/L (dusts/mists)
Oral: ATE = 221 mg/kg bw

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.

SECTION 4: First aid measures

4.1 Description of first aid measures

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Show this safety data sheet or label to the doctor if possible.
- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of lukewarm water, keeping eyelids open. Continue to rinse for at least 15 minutes.
- Inhalation** : Remove to fresh air.
- Skin contact** : Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : 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.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire. Recommended: Alcohol resistant foam, CO₂, powders or water spray/mist.
- Unsuitable extinguishing media** : Do not use a direct water jet that could spread the fire.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : This product is not classified as flammable. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

Hazardous combustion products : 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

Special protective actions for fire-fighters : 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.

Special protective equipment for fire-fighters : Appropriate breathing apparatus may be required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions : Hazardous to aquatic environment. Do not allow to enter drains, water courses or soil.

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 contact with skin and eyes. 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-(2-butoxyethoxy)ethanol	EU OEL (Europe, 10/2019). Notes: list of indicative occupational exposure limit values TWA: 67.5 mg/m ³ 8 hours. TWA: 10 ppm 8 hours. STEL: 101.2 mg/m ³ 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.
- Hand protection** : 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
- Skin protection** : Wear appropriate personal protective clothing to prevent skin contact.
- Respiratory protection** : 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.
- Environmental exposure controls** : 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**

- Physical state** : Liquid.
- Color** : Various
- Odor** : Mild.
- Odor threshold** : Not relevant for the hazard assessment of the product.
- pH** : 7 to 9
- Melting point/freezing point** : 0°C (water)
- Initial boiling point and boiling range** : 100°C (water)
- Flash point** : Not available.
- Evaporation rate** : Not relevant due to the nature of the product.
- Flammability (solid, gas)** : Not applicable. Product is a liquid.
- Upper/lower flammability or explosive limits** : No flammable ingredients present.
- Vapor pressure** : 3.2 kPa [room temperature] (water)
- Vapor density** : Not relevant for the hazard assessment of the product.
- Density** : 1.3 to 1.4 g/cm³
- Solubility(ies)** : Miscible in water.
- Partition coefficient: n-octanol/ water** : Not applicable.
- Auto-ignition temperature** : Not relevant due to the nature of the product.
- Decomposition temperature** : Not relevant for the hazard assessment of the product.
- Viscosity** : Not relevant for the hazard assessment of the product.
- Explosive properties** : No explosive ingredients present.

Oxidizing properties : No oxidizing ingredients present.

Particle characteristics

Median particle size : Not applicable.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : See Section 10.5.

10.2 Chemical stability : Stable under recommended storage and handling conditions (see Section 7).

10.3 Possibility of hazardous reactions : 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 hazard classes as defined in Regulation (EC) No 1272/2008

There is no testdata 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
Zinc pyrithione	LC50 Inhalation Dusts and mists	Rat	2.4 mg/l	1 hours
	LC50 Inhalation Dusts and mists	Rat	0.61 mg/l	4 hours
	LC50 Inhalation Dusts and mists	Rat	0.84 mg/l	4 hours

Not classified.

Irritation/Corrosion

Not classified.

Sensitization

Not classified.

The product contains sensitizing substances mentioned in sections 2 and 3.

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.

11.2 Information on other hazards**11.2.1 Endocrine disrupting properties**

Not applicable.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

Ecological testing has not been conducted on this product.

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

Harmful to aquatic life with long lasting effects.

Do not allow to enter drains, water courses or soil.

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Ironopol	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
zinc pyrithione	EC50 0.0013 mg/l	Aquatic plants	96 hours
	EC50 0.0082 mg/l	Daphnia	48 hours
	Acute EC50 0.0006 mg/l	Algae - Skeletonema costatum	48 hours
	Acute LC50 0.0063 mg/l	Crustaceans - Americamysis bahia	96 hours
	Acute LC50 0.0026 mg/l	Fish - Pimephales promelas	96 hours
	Chronic EC10 0.00068 mg/l	Algae - Skeletonema costatum	72 hours
	Chronic NOEC 0.0021 mg/l	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.00122 mg/l	Fish - Pimephales promelas	32 days
2-octyl-2H-isothiazol-3-one (OIT)	Acute EC50 0.00129 mg/l	Algae - Navicula pelliculosa	48 hours
	Acute EC50 0.013 mg/l	Crustaceans - Crassostrea virginica	96 hours
	Acute LC50 0.047 mg/l	Fish - Oncorhynchus mykiss	96 hours
	Chronic EC10 0.000224 mg/l	Algae - Navicula pelliculosa	48 hours
	Chronic NOEC 0.003 mg/l	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.0085 mg/l	Fish - Pimephales promelas	35 days

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
2-(2-butoxyethoxy)ethanol	-	92 % - 28 days	-	-
Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability	
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (C(M) IT/MIT (3:1))	-	-	Readily	
2-octyl-2H-isothiazol-3-one (OIT)	-	-	Not readily	
zinc pyrithione	-	-	Not readily	
2-(2-butoxyethoxy)ethanol	-	-	Readily	

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	Bioconcentration factor [BCF]	Potential
2-octyl-2H-isothiazol-3-one (OIT)	2.45	-	low
terbutryn	3.74	-	low
zinc pyrithione	0.9	11	low
bronopol	0.18	-	low
2-(2-butoxyethoxy)ethanol	1	<3	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties : Not applicable.

12.7 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 12	waste paint and varnish other than those mentioned in 08 01 11

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 or ID number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-
14.3 Transport hazard class(es)	-	-	-
14.4 Packing group	-	-	-
14.5 Environmental hazards	No.	No.	No.

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 Maritime transport in bulk according to IMO instruments : 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.

Persistent Organic Pollutants

Not listed.

VOC Directive : This product is in scope of Directive 2004/42/CE.

VOC max value (g/l) : 140

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	<p>H301 Toxic if swallowed. H302 Harmful if swallowed. H310 Fatal in contact with skin. H311 Toxic in contact with skin. H312 Harmful in contact with skin. H330 Fatal if inhaled. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H319 Causes serious eye irritation. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H335 May cause respiratory irritation. H360D May damage the unborn child. H372 Causes damage to organs through prolonged or repeated exposure. 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. EUH071 Corrosive to the respiratory tract.</p>
Full text of classifications [CLP/GHS]	<p>Acute Tox. 2 ACUTE TOXICITY - Category 2 Acute Tox. 3 ACUTE TOXICITY - Category 3 Acute Tox. 4 ACUTE TOXICITY - Category 4 Aquatic Acute 1 AQUATIC HAZARD (ACUTE) - Category 1 Aquatic Chronic 1 AQUATIC HAZARD (LONG-TERM) - Category 1 Aquatic Chronic 2 AQUATIC HAZARD (LONG-TERM) - Category 2 Aquatic Chronic 3 AQUATIC HAZARD (LONG-TERM) - Category 3 Eye Dam. 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 Eye Irrit. 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 Repr. 1B TOXIC TO REPRODUCTION - Category 1B Skin Corr. 1 SKIN CORROSION/IRRITATION - Category 1 Skin Corr. 1C SKIN CORROSION/IRRITATION - Category 1C Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2 Skin Sens. 1 SKIN SENSITIZATION - Category 1 Skin Sens. 1A SKIN SENSITIZATION - Category 1A STOT RE 1 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 STOT SE 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3</p>
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Notice to reader

This Safety Data Sheet is prepared in accordance with Annex II (EU) No 878/2020 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.