

SAFETY DATA SHEET



TEKNOSHIELD 4015-00 - All variants

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

1.1 Product identifier

Product name : TEKNOSHIELD 4015-00 - All variants

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

Product use : Paint.

1.3 Details of the supplier of the safety data sheet

Teknos Group Oy, Takkatie 3, FI-00370 HELSINKI, FINLAND. Tel. +358 9 506 091.

e-mail address of person responsible for this SDS : Prod-safe@teknos.com

National contact

Teknos Group Oy, Takkatie 3, FI-00370 HELSINKI, FINLAND. Tel. +358 9 506 091.

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : In an emergency, call 112

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]

Not classified.

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

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

2.2 Label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Supplemental label elements : Contains 3-iodo-2-propynyl-butyl carbamate, Cobalt bis(2-ethylhexanoate), 2-Octyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one. May produce an allergic reaction.

Safety data sheet available on request.

Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist. Contains biocidal products for dry film and in-can preservation: IPBC. Risk of skin sensitisation.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles :

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Version : 2 1/19

TEKNOSHIELD 4015-00 - All variants

Label No : 52221

SECTION 2: Hazards identification

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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	Specific Conc. Limits, M-factors and ATEs	Type
Titanium dioxide	REACH #: 01-2119489379-17 EC: 236-675-5 CAS: 13463-67-7	≤5	Carc. 2, H351 (inhalation)	-	[1] [*]
3-iodo-2-propynyl-butyl carbamate	EC: 259-627-5 CAS: 55406-53-6 Index: 616-212-00-7	<0.25	Acute Tox. 4, H302 Acute Tox. 3, H331 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 1, H372 (larynx) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 400 mg/kg ATE [Inhalation (dusts and mists)] = 0.67 mg/l M [Acute] = 10 M [Chronic] = 1	[1]
Cobalt bis (2-ethylhexanoate)	REACH #: 01-2119524678-29 EC: 205-250-6 CAS: 136-52-7	<0.1	Eye Irrit. 2, H319 Skin Sens. 1A, H317 Repr. 1B, H360FD Aquatic Acute 1, H400 Aquatic Chronic 3, H412	M [Acute] = 1	[1]
2-Octyl-2H-isothiazol-3-one	EC: 247-761-7 CAS: 26530-20-1 Index: 613-112-00-5	<0.001	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 Aquatic Chronic 1, H410 EUH071	ATE [Oral] = 125 mg/kg ATE [Dermal] = 311 mg/kg ATE [Inhalation (dusts and mists)] = 0.27 mg/l Skin Sens. 1, H317: C ≥ 0.0015% M [Acute] = 100 M [Chronic] = 100	[1]
2-methyl-2H-isothiazol-3-one	EC: 220-239-6 CAS: 2682-20-4	<0.0015	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 EUH071 See Section 16 for the full text of the H statements declared above.	ATE [Oral] = 100 mg/kg ATE [Dermal] = 300 mg/kg ATE [Inhalation (dusts and mists)] = 0.11 mg/l Skin Sens. 1, H317: C ≥ 0.0015% M [Acute] = 10 M [Chronic] = 1	[1]

SECTION 3: Composition/information on ingredients

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, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[*] The classification as a carcinogen by inhalation applies only to mixtures placed on the market in powder form containing 1% or more of titanium dioxide particles with aerodynamic diameter $\leq 10 \mu\text{m}$ not bound within a matrix.

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

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous combustion products** : Decomposition products may include the following materials:
metal oxide/oxides

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

SECTION 5: Firefighting measures

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections

- : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters


Occupational exposure limits

Product/ingredient name	Exposure limit values
Cobalt bis(2-ethylhexanoate)	Regulation on Limit Values - Technical Guidance Values (Austria, 4/2021). <input type="checkbox"/> Absorbed through skin. Skin sensitiser. Inhalation sensitiser. TWA: 0.1 mg/m ³ , (measured as Co) 8 hours. Form: Inhalable fraction PEAK: 0.4 mg/m ³ , (measured as Co), 4 times per shift, 15 minutes. Form: Inhalable fraction
2-Octyl-2H-isothiazol-3-one	Regulation on Limit Values - MAC (Austria, 4/2021). Absorbed through skin. Sensitization potential. TWA: 0.05 mg/m ³ 8 hours. Form: Inhalable fraction CEIL: 0.05 mg/m ³ 15 minutes. Form: Inhalable fraction
2-methyl-2H-isothiazol-3-one	Regulation on Limit Values - MAC (Austria, 4/2021). <input type="checkbox"/> Skin sensitiser. TWA: 0.05 mg/m ³ 8 hours.
No exposure limit value known.	
<input checked="" type="checkbox"/> Cobalt bis(2-ethylhexanoate)	Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 6/2021). [Cobalt and inorganic compounds] Limit value 8 hours: 0.1 mg/m ³ , (as cobalt) 8 hours.
Cobalt bis(2-ethylhexanoate)	Ministry of Economy, Labour and Entrepreneurship ELV/STELV (Croatia, 1/2021). <input type="checkbox"/> Inhalation sensitiser. ELV: 0.1 mg/m ³ , (as Co) 8 hours.
No exposure limit value known.	
Cobalt bis(2-ethylhexanoate)	Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 5/2021). <input type="checkbox"/> Skin sensitiser. TWA: 0.05 mg/m ³ , (as Co) 8 hours. Form: aerosol, inhalable fraction. STEL: 0.1 mg/m ³ , (as Co) 15 minutes. Form: aerosol, inhalable fraction.
<input checked="" type="checkbox"/> Cobalt bis(2-ethylhexanoate)	Working Environment Authority (Denmark, 6/2021). <input type="checkbox"/> Carcinogen. TWA: 0.01 mg/m ³ , (calculated as Co) 8 hours.
<input checked="" type="checkbox"/> Cobalt bis(2-ethylhexanoate)	Occupational exposure limits, Regulation No. 293 (Estonia, 10/2019). <input type="checkbox"/> Skin sensitiser. TWA: 0.05 mg/m ³ , (calculated as Co) 8 hours.
No exposure limit value known.	
<input checked="" type="checkbox"/> Cobalt bis(2-ethylhexanoate)	Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021). [Cobalt and its inorganic compounds] TWA: 0,02 mg/m ³ , (calculated as Co) 8 hours.
No exposure limit value known.	
3-iodo-2-propynyl-butyl carbamate	DFG MAC-values list (Germany, 10/2021). Skin sensitiser. PEAK: 0.116 mg/m ³ , 4 times per shift, 15 minutes. PEAK: 0.01 ppm, 4 times per shift, 15 minutes. TWA: 0.058 mg/m ³ 8 hours. TWA: 0.005 ppm 8 hours. TRGS 900 OEL (Germany, 7/2021). Skin sensitiser. PEAK: 0.116 mg/m ³ 15 minutes. PEAK: 0.01 ppm 15 minutes. TWA: 0.058 mg/m ³ 8 hours. TWA: 0.005 ppm 8 hours.
2-Octyl-2H-isothiazol-3-one	TRGS 900 OEL (Germany, 7/2021). Absorbed through skin. TWA: 0.05 mg/m ³ 8 hours. Form: Inhalable fraction PEAK: 0.1 mg/m ³ 15 minutes. Form: Inhalable fraction

SECTION 8: Exposure controls/personal protection

2-methyl-2H-isothiazol-3-one	<p>DFG MAC-values list (Germany, 10/2021). Absorbed through skin. Skin sensitiser. TWA: 0.05 mg/m³ 8 hours. Form: inhalable fraction PEAK: 0.1 mg/m³, 4 times per shift, 15 minutes. Form: inhalable fraction</p>
Cobalt bis(2-ethylhexanoate)	<p>DFG MAC-values list (Germany, 10/2021). Skin sensitiser. Presidential Decree 307/1986: Occupational exposure limit values (Greece, 9/2021). ☐ TWA: 0.1 mg/m³, (as Co) 8 hours.</p>
☑ Cobalt bis(2-ethylhexanoate)	<p>5/2020. (II. 6.) ITM Decree (Hungary, 2/2020). ☐ Skin sensitiser. Inhalation sensitiser. TWA: 0.02 mg/m³, (as Co) 8 hours.</p>
☑ Cobalt bis(2-ethylhexanoate)	<p>Ministry of Welfare, List of Exposure Limits (Iceland, 5/2021). ☐ Skin sensitiser. TWA: 0.02 mg/m³, (as Co) 8 hours. Form: Dust and fumes</p>
☑ Cobalt bis(2-ethylhexanoate)	<p>NAOSH (Ireland, 5/2021). [Cobalt and cobalt compounds] Skin sensitiser. Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV-8hr: 0.02 mg/m³, (as Co) 8 hours.</p>
No exposure limit value known.	
No exposure limit value known.	
Cobalt bis(2-ethylhexanoate)	<p>Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2021). ☐ Skin sensitiser. TWA: 0.05 mg/m³, (as Co) 8 hours.</p>
No exposure limit value known.	
No exposure limit value known.	
No exposure limit value known.	
Cobalt bis(2-ethylhexanoate)	<p>FOR-2011-12-06-1358 (Norway, 6/2021). ☐ Skin sensitiser. Reproductive toxin. TWA: 0.02 mg/m³, (calculated as Co) 8 hours.</p>
☑ Cobalt bis(2-ethylhexanoate)	<p>Regulation of the Minister of Family, Labor and Social Policy of 18 February 2021, regarding the highest permissible concentrations and values of agents harmful to health in the work environment (Journal of Laws 2021, item 325) (Poland, 2/2021). [cobalt and its inorganic compounds] TWA: 0.02 mg/m³, (calculated as Co) 8 hours.</p>
Cobalt bis(2-ethylhexanoate)	<p>Portuguese Institute of Quality (Portugal, 11/2014). ☐ TWA: 0.02 mg/m³, (expressed as Co) 8 hours.</p>
No exposure limit value known.	
Cobalt bis(2-ethylhexanoate)	<p>Government regulation SR c. 355/2006 (Slovakia, 9/2020). ☐ Skin sensitiser. TWA: 0.05 mg/m³, (Cobalt and its compounds, as Co) 8 hours.</p>
3-iodo-2-propynyl-butyl carbamate	<p>Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 5/2021). KTV: 0.01 ppm, 4 times per shift, 15 minutes. TWA: 0.005 ppm 8 hours. KTV: 0.116 mg/m³, 4 times per shift, 15 minutes. TWA: 0.058 mg/m³ 8 hours.</p>
2-Octyl-2H-isothiazol-3-one	<p>Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 5/2021). Absorbed through skin. TWA: 0.05 mg/m³ 8 hours. Form: Inhalable fraction KTV: 0.1 mg/m³, 4 times per shift, 15 minutes. Form: Inhalable fraction</p>
Cobalt bis(2-ethylhexanoate)	<p>National institute of occupational safety and health (Spain, 4/2021). ☐ Skin sensitiser. Inhalation sensitiser. TWA: 0.02 mg/m³, (as Co) 8 hours.</p>

SECTION 8: Exposure controls/personal protection

<p> Cobalt bis(2-ethylhexanoate)</p> <p>3-iodo-2-propynyl-butyl carbamate</p> <p>Cobalt bis(2-ethylhexanoate)</p> <p>2-Octyl-2H-isothiazol-3-one</p> <p>Cobalt bis(2-ethylhexanoate)</p>	<p>Work environment authority Regulation 2018:1 (Sweden, 9/2021). [cobalt and inorganic compounds] Absorbed through skin. Skin sensitiser. TWA: 0.02 mg/m³, (as Co) 8 hours. Form: inhalable fraction</p> <p>SUVA (Switzerland, 1/2021). Skin sensitiser. STEL: 0.24 mg/m³ 15 minutes. Form: vapour and aerosols STEL: 0.02 ppm 15 minutes. Form: vapour and aerosols TWA: 0.01 ppm 8 hours. Form: vapour and aerosols TWA: 0.12 mg/m³ 8 hours. Form: vapour and aerosols</p> <p>SUVA (Switzerland, 1/2021). <input type="checkbox"/> Absorbed through skin. Skin sensitiser. TWA: 0.05 mg/m³, (calculated as Co) 8 hours. Form: inhalable dust and aerosol</p> <p>SUVA (Switzerland, 1/2021). Absorbed through skin. Skin sensitiser. TWA: 0.05 mg/m³ 8 hours. Form: Inhalable fraction STEL: 0.1 mg/m³ 15 minutes. Form: Inhalable fraction</p> <p>EH40/2005 WELs (United Kingdom (UK), 1/2020). [cobalt and cobalt compounds] Inhalation sensitiser. TWA: 0.1 mg/m³, (as Co) 8 hours.</p>
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Biological exposure indices

Product/ingredient name	Exposure indices
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
 Cobalt bis(2-ethylhexanoate)	<p>Institute of Occupational Health, Ministry of Social Affairs (Finland, 9/2020) [Cobalt and its inorganic compounds] BEI: 130 nmol/l, cobalt [in urine]. Sampling time: at the end of each work shift work step or a week or exposure period.</p>
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
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SECTION 8: Exposure controls/personal protection

No exposure indices known.
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 No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following:
 European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
3-iodo-2-propynyl-butyl carbamate	DNEL	Long term Inhalation	0.023 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	0.07 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	1.16 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	1.16 mg/m ³	Workers	Local
	DNEL	Long term Dermal	2 mg/kg bw/day	Workers	Systemic
Cobalt bis(2-ethylhexanoate)	DNEL	Long term Inhalation	37 µg/m ³	General population	Local
	DNEL	Long term Oral	175 µg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	235.1 µg/m ³	Workers	Local
2-methyl-2H-isothiazol-3-one	DNEL	Long term Inhalation	0.021 mg/m ³	General population	Local
	DNEL	Long term Inhalation	0.021 mg/m ³	Workers	Local
	DNEL	Long term Oral	0.027 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0.043 mg/m ³	General population	Local
	DNEL	Short term Inhalation	0.043 mg/m ³	Workers	Local
	DNEL	Short term Oral	0.053 mg/kg bw/day	General population	Systemic

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

SECTION 8: Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Recommendations : Wear suitable gloves tested to EN374.
> 8 hours (breakthrough time): Nitrile gloves. thickness > 0.3 mm
Not recommended polyvinyl alcohol (PVA) gloves
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Filter type (spray application): A P
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid.
- Colour** : Various
- Odour** : Slight
- Odour threshold** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** :

Ingredient name	°C	°F	Method
Water	100	212	

- Flammability** : Not available.
- Lower and upper explosion limit** : Lower: Not applicable.
Upper: Not applicable.
- Flash point** : Closed cup: >100°C (>212°F)
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- pH** : 7.5 to 8.5
- Viscosity** : Not available.

SECTION 9: Physical and chemical properties

Solubility(ies) :

Not available.

Solubility in water : Not available.

Partition coefficient: n-octanol/ water : Not applicable.

Vapour pressure :

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Water	17.5	2.3				

Relative density : Not available.

Density : 1 g/cm³

Vapour density : Not available.

Explosive properties : Not available.

Oxidising properties : Not available.

Particle characteristics

Median particle size : Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-Iodo-2-propynyl-butyl carbamate	LC50 Inhalation Dusts and mists	Rat	0.67 g/m ³	4 hours
	LC50 Inhalation Dusts and mists	Rat	0.763 mg/l	4 hours
	LD50 Dermal	Rat	>2000 mg/kg	-
Cobalt bis(2-ethylhexanoate)	LD50 Oral	Rat	400 mg/kg	-
	LD50 Dermal	Rabbit	>5 g/kg	-
2-Octyl-2H-isothiazol-3-one	LD50 Oral	Rat	1.22 g/kg	-
	LD50 Dermal	Rabbit	690 mg/kg	-
2-methyl-2H-isothiazol-3-one	LD50 Oral	Rat	550 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	0.11 mg/l	4 hours

Conclusion/Summary : Based on available data, the classification criteria are not met.

Acute toxicity estimates

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SECTION 11: Toxicological information

Route	ATE value
Inhalation (vapours)	404.74 mg/l
Inhalation (dusts and mists)	306.71 mg/l

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Titanium dioxide	Skin - Mild irritant	Human	-	72 hours 300 ug l	-
3-iodo-2-propynyl-butyl carbamate	Eyes - Severe irritant	Rabbit	-	-	-
2-Octyl-2H-isothiazol-3-one	Eyes - Severe irritant	Rabbit	-	100 mg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
3-iodo-2-propynyl-butyl carbamate	skin	Guinea pig	Not sensitizing

Conclusion/Summary : Based on available data, the classification criteria are not met.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
3-iodo-2-propynyl-butyl carbamate	-	Experiment: In vitro Subject: Bacteria	Negative

Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

It has been observed that the carcinogenic hazard of this product arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung.

Conclusion/Summary : Based on available data, the classification criteria are not met.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
3-iodo-2-propynyl-butyl carbamate	Negative	-	Negative	Rabbit - Female	Oral: 20 mg/kg	13 days; 7 days per week
	Positive	-	Negative	Rabbit - Female	Oral: 50 mg/kg	13 days; 7 days per week

Conclusion/Summary : Based on available data, the classification criteria are not met.

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
3-iodo-2-propynyl-butyl carbamate	Negative - Oral	Rabbit - Female	50 mg/kg	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
3-iodo-2-propynyl-butyl carbamate	Category 1	-	larynx

Aspiration hazard

Not available.

SECTION 11: Toxicological information

Information on likely routes of exposure : Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.
Inhalation : No specific data.
Skin contact : No specific data.
Ingestion : No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.
General : No known significant effects or critical hazards.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Titanium dioxide	Acute LC50 3 mg/l Fresh water	Crustaceans - <i>Ceriodaphnia dubia</i> - Neonate	48 hours
	Acute LC50 6.5 mg/l Fresh water	Daphnia - <i>Daphnia pulex</i> - Neonate	48 hours
3-iodo-2-propynyl-butyl carbamate	Acute LC50 >1000000 µg/l Marine water	Fish - <i>Fundulus heteroclitus</i>	96 hours
	Acute EC50 0.022 mg/l Fresh water	Algae - <i>Scenedemus subspicatus</i>	72 hours
	Acute EC50 0.16 mg/l Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 0.067 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
	Acute NOEC 0.049 mg/l Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
2-Octyl-2H-isothiazol-3-one	Chronic NOEC 0.05 mg/l Fresh water	Daphnia - <i>Daphnia Magna</i>	21 days
	Acute EC50 107 ppb Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours

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2-methyl-2H-isothiazol-3-one	Acute LC50 47 ppb Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours
	Chronic NOEC 74 ppb Fresh water	Daphnia - <i>Daphnia magna</i>	21 days
	Chronic NOEC 8.5 ppb	Fish - <i>Pimephales promelas</i>	35 days
	Acute EC50 0.18 ppm Fresh water	Daphnia - <i>Daphnia magna</i>	48 hours
	Acute LC50 0.07 ppm Fresh water	Fish - <i>Oncorhynchus mykiss</i>	96 hours

Conclusion/Summary : Based on available data, the classification criteria are not met.

12.2 Persistence and degradability

Conclusion/Summary : This product has not been tested for biodegradation.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
3-iodo-2-propynyl-butyl carbamate	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
3-iodo-2-propynyl-butyl carbamate	>1	-	Low
Cobalt bis(2-ethylhexanoate)	-	15600	High
2-Octyl-2H-isothiazol-3-one	2.45	-	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 available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

European waste catalogue (EWC) : 080112, 200128

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

SECTION 13: Disposal considerations

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	Not regulated.	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.	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 relevant/applicable due to nature of the product.

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)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Labelling :

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

SECTION 15: Regulatory information

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

Austria

VbF class : Not regulated.

Limitation of the use of organic solvents : Permitted.


Czech Republic

Storage code : IV

Denmark

Danish fire class : V-1

MAL-code : 00-6

Protection based on MAL :  According to the regulations on work involving coded products, the following stipulations apply to the use of personal protective equipment:

General: Gloves must be worn for all work that may result in soiling. Apron/coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. A face shield must be worn in work involving spattering if a full mask is not required. In this case, other recommended use of eye protection is not required.

In all spraying operations in which there is return spray, the following must be worn: respiratory protection and arm protectors/apron/coveralls/protective clothing as appropriate or as instructed.

 MAL-code: 00-6

Application: When using scraper or knife, brush, roller etc. for pre- and post-treatments in a spray booth where the operator is outside the spray zone and when working in similar new* facilities of the combined-cabin, spray-cabin and spray-booth type where the operator is working inside the spray zone. When spraying in new* booths and cabins with non-atomizing guns. During downtimes, cleaning and repair in closed facilities, spray booths or cabins, if there is a risk of contact with wet paint or organic solvents. During non-atomising spraying in existing* facilities of the combined-cabin, spray-cabin and spray-booth type where the operator is working inside the spray zone. When using scraper or knife, brush, roller, etc. for pre- and post-treatments in cabins or booths of the existing* facility type, if the operator is inside the spray zone. When using scraper or knife, brush, roller, etc. for pre- and post-treatments outside a closed facility, spray booth or spray cabin.

- Protective clothing must be worn.

When spraying in existing* spray booths, if the operator is outside the spray zone.

- Air-supplied full mask and protective clothing must be worn.

During all spraying where atomisation occurs in cabins or spray booths where the operator is inside the spray zone and during spraying outside a closed facility, cabin or booth.

- Air-supplied full mask, protective clothing and hood must be worn.

SECTION 15: Regulatory information

Drying: Items for drying/drying ovens that are temporarily placed on such things as rack trolleys, etc, must be equipped with a mechanical exhaust system to prevent fumes from wet items from passing through workers' inhalation zone.

Polishing: When polishing treated surfaces, a mask with dust filter must be worn. When machine grinding, eye protection must be worn. Work gloves must always be worn.

Caution The regulations contain other stipulations in addition to the above.

*See Regulations.

- Restrictions on use** : Not to be used by professional users below 18 years of age. See the National Working Environment Authorities Executive Order regarding Young People At Work.
- List of undesirable substances** : Not listed
- Carcinogenic waste** : Waste containers must be labeled: Contains a substance or substances regulated by Danish working environment legislation on cancer risks.

Finland

France

Social Security Code, Articles L 461-1 to L 461-7 : Cobalt bis(2-ethylhexanoate) RG 70

Reinforced medical surveillance : Act of July 11, 1977 determining the list of activities which require reinforced medical surveillance: not applicable

Germany

Storage class (TRGS 510) : 10

Hazardous incident ordinance

This product is not controlled under the Germany Hazardous Incident Ordinance.

Hazard class for water : 3

Technical instruction on air quality control : TA-Luft Number 5.2.5: 1.9%
TA-Luft Class I - Number 5.2.5: 0.2%

AOX : The product contains organically bound halogens and can contribute to the AOX value in waste water.

Italy

D.Lgs. 152/06 : Not determined.

Netherlands

Water Discharge Policy (ABM) : (1) Non biodegradable substances with hazardous properties for humans and the environment (carcinogenicity/ mutagenicity/ reprotoxicity/ bioacumulative potential/ toxicity or persistence). Decontamination effort: Z

Norway

Sweden

Switzerland

VOC content : Exempt.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

SECTION 15: Regulatory information

[UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

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
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

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

Not classified.

[Full text of abbreviated H statements](#)

✔ H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H351	Suspected of causing cancer.
H360FD	May damage fertility. 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.
H412	Harmful to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

[Full text of classifications \[CLP/GHS\]](#)

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Carc. 2	CARCINOGENICITY - Category 2
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
Skin Corr. 1	SKIN CORROSION/IRRITATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1

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SECTION 16: Other information

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[Notice to reader](#)

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

