

## OPTIMAL Vindu og dør

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

#### 1.1 Product identifier

<b>Product name</b>	: OPTIMAL Vindu og dør
<b>Product code</b>	: 15160
<b>Product description</b>	: Waterborne paint.
<b>Product type</b>	: Liquid.
<b>Other means of identification</b>	: Not available.

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

Use in coatings - Consumer use: Apply this product only as specified on the label.

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

Jotun A/S  
P.O.Box 2021  
3202 Sandefjord  
Norway

Tel: + 47 33 45 70 00  
Fax: +47 33 45 72 42  
E-mail: SDSJotun@jotun.no

#### 1.4 Emergency telephone number

Norwegian National Poison Centre: +47 22 59 13 00

**NOBB number** : 43853017, 43853021, 43852934, 43852945, 43852953, 43852964, 43852972, 43852983, 43852998, 43853002

### 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.

See Section 16 for the full text of the H statements declared above.

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

#### 2.2 Label elements

**Signal word** : No signal word.

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

#### Precautionary statements

**General** : P102 - Keep out of reach of children.

**Prevention** : P273 - Avoid release to the environment.

**Response** : Not applicable.

**Storage** : Not applicable.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

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**SECTION 2: Hazards identification**

**Supplemental label elements** : EUH208 - Contains 3-iodo-2-propynyl butylcarbamate (IPBC), 1,2-benzisothiazol-3(2H)-one (BIT), C(M)IT/MIT (3:1) and 2-methyl-2H-isothiazol-3-one (MIT). May produce an allergic reaction.  
EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

**Additional information** : Contains preservatives: IPBC, C(M)IT/MIT (3:1)

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

**Special packaging requirements**

**Containers to be fitted with child-resistant fastenings** : Not applicable.

**Tactile warning of danger** : Not applicable.

**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
propylene glycol	REACH #: 01-2119456809-23 EC: 200-338-0 CAS: 57-55-6	≤3	Not classified.	-	[2]
2-butoxyethanol	REACH #: 01-2119475108-36 EC: 203-905-0 CAS: 111-76-2 Index: 603-014-00-0	<1	Acute Tox. 4, H302 Acute Tox. 3, H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319	ATE [Oral] = 1200 mg/kg ATE [Inhalation (vapours)] = 3 mg/l	[1] [2]
3-iodo-2-propynyl butylcarbamate (IPBC)	EC: 259-627-5 CAS: 55406-53-6 Index: 616-212-00-7	<1	Acute Tox. 4, H302 Acute Tox. 3, H331 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 1, H372 (trachea) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg ATE [Inhalation (dusts and mists)] = 0.5 mg/l M [Acute] = 10 M [Chronic] = 1	[1]
1,2-benzisothiazol-3(2h)-one (BIT)	EC: 220-120-9 CAS: 2634-33-5 Index: 613-088-00-6	<0.05	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400	ATE [Oral] = 500 mg/kg Skin Sens. 1, H317: C ≥ 0.05% M [Acute] = 1	[1]

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### SECTION 3: Composition/information on ingredients

pyridine-2-thiol 1-oxide, sodium salt	REACH #: 01-2119493385-28 EC: 223-296-5 CAS: 3811-73-2	≤0.038	Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 2, H411 EUH070	ATE [Oral] = 500 mg/kg ATE [Dermal] = 790 mg/kg ATE [Inhalation (dusts and mists)] = 0.5 mg/l M [Acute] = 100	[1]
C(M)IT/MIT (3:1)	REACH #: 01-2120764691-48 CAS: 55965-84-9 Index: 613-167-00-5	<0.0015	Acute Tox. 3, H301 Acute Tox. 2, H310 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	ATE [Oral] = 53 mg/kg ATE [Dermal] = 50 mg/kg ATE [Inhalation (vapours)] = 0.5 mg/l Skin Corr. 1B, 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. 1, H317: C ≥ 0.0015% M [Acute] = 100 M [Chronic] = 100	[1]
2-methyl-2H-isothiazol-3-one (MIT)	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  <b>See Section 16 for the full text of the H statements declared above.</b>	ATE [Oral] = 100 mg/kg ATE [Dermal] = 300 mg/kg ATE [Inhalation (vapours)] = 0.5 mg/l Skin Sens. 1, H317: C ≥ 0.0015% M [Acute] = 10 M [Chronic] = 1	[1]

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

[2] Substance with a workplace exposure limit

This mixture contains ≥ 1% of titanium dioxide. The Annex VI classification of titanium dioxide does not apply to this mixture according to Note 10.

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

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**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. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
- 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**

There are no data available on the mixture itself. The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains 3-iodo-2-propynyl butylcarbamate (IPBC), 1,2-benzisothiazol-3(2H)-one (BIT), C(M)IT/MIT (3:1), 2-methyl-2H-isothiazol-3-one (MIT). May produce an allergic reaction.

**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.

See toxicological information (Section 11)

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

- Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO<sub>2</sub>, powders, water spray.
- Unsuitable extinguishing media** : Do not use water jet.

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

- Hazards from the substance or mixture** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
- Hazardous combustion products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

**5.3 Advice for firefighters**

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## SECTION 5: Firefighting measures

- Special protective actions for fire-fighters** : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.
- 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

- For non-emergency personnel** : Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.
- 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** : Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

- 6.3 Methods and material 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 (see Section 13). Preferably clean with a detergent. Avoid using solvents.

- 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

Avoid contact with skin and eyes. Avoid inhalation of vapour, spray or mist.  
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.  
Put on appropriate personal protective equipment (see Section 8).  
Never use pressure to empty. Container is not a pressure vessel.  
Always keep in containers made from the same material as the original one.  
Comply with the health and safety at work laws.  
Do not allow to enter drains or watercourses.

When operators, whether spraying or not, have to work inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapour in all cases. In such circumstances they should wear a compressed air-fed respirator during the spraying process and until such time as the particulates and solvent vapour concentration has fallen below the exposure limits.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations.

#### Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

#### Additional information on storage conditions

Store in a dry, cool and well-ventilated area. Keep container tightly closed.

No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

See Technical Data Sheet / packaging for further information.

### 7.3 Specific end use(s)

- Recommendations** : Not available.

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**SECTION 7: Handling and storage****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
propylene glycol	<b>FOR-2011-12-06-1358 (Norway, 6/2021).</b> TWA: 79 mg/m <sup>3</sup> 8 hours.
2-butoxyethanol	TWA: 25 ppm 8 hours. <b>FOR-2011-12-06-1358 (Norway, 6/2021). Absorbed through skin. Notes: indicative limit value</b> TWA: 10 ppm 8 hours. TWA: 50 mg/m <sup>3</sup> 8 hours.

**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
2-butoxyethanol	DNEL	Short term Dermal	89 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	663 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	246 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Dermal	75 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	98 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Dermal	44.5 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Inhalation	426 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	DNEL	Short term Oral	13.4 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	123 mg/m <sup>3</sup>	General population [Consumers]	Local
	DNEL	Long term Dermal	38 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	49 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	DNEL	Long term Oral	3.2 mg/kg bw/day	General population	Systemic

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## SECTION 8: Exposure controls/personal protection

3-iodo-2-propynyl butylcarbamate (IPBC)	DNEL	Long term Oral	6.3 mg/kg bw/day	[Consumers] General population	Systemic
	DNEL	Short term Oral	26.7 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	59 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	98 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	147 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	246 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	426 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Short term Inhalation	1091 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	0.023 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	0.07 mg/m <sup>3</sup>	Workers	Systemic
1,2-benzisothiazol-3(2h)-one (BIT)	DNEL	Short term Inhalation	1.16 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	1.16 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Dermal	2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0.345 mg/kg bw/day	General population	Systemic
C(M)IT/MIT (3:1)	DNEL	Long term Dermal	0.966 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.2 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	6.81 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	0.02 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	0.02 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	0.04 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	0.04 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Oral	0.09 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	0.11 mg/kg bw/day	General population	Systemic
	2-methyl-2H-isothiazol-3-one (MIT)	DNEL	Long term Inhalation	0.021 mg/m <sup>3</sup>	General population
DNEL		Long term Inhalation	0.021 mg/m <sup>3</sup>	Workers	Local
DNEL		Long term Oral	0.027 mg/kg bw/day	General population	Systemic
DNEL		Short term Inhalation	0.043 mg/m <sup>3</sup>	General population	Local
DNEL		Short term Inhalation	0.043 mg/m <sup>3</sup>	Workers	Local
DNEL		Short term Oral	0.053 mg/kg bw/day	General population	Systemic

### PNECs

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## SECTION 8: Exposure controls/personal protection

Product/ingredient name	Compartment Detail	Value	Method Detail
2-butoxyethanol	Fresh water	8.8 mg/l	-
	Marine	0.88 mg/l	-
	Sewage Treatment Plant	463 mg/l	-
	Fresh water sediment	34.6 mg/kg dwt	-
	Marine water sediment	3.46 mg/kg dwt	-
	Soil	3.13 mg/kg dwt	-
	Secondary Poisoning	20 mg/kg	-

### 8.2 Exposure controls

**Appropriate engineering controls** : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction.

#### Individual protection measures

**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 to ISO 16321-1:2022 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

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

##### Gloves

Wear suitable gloves tested to ISO 374-1:2016.

Recommended, gloves(breakthrough time) > 8 hours: nitrile rubber (> 0.4 mm), neoprene (> 0.35 mm), PVC (> 0.5 mm)

May be used, gloves(breakthrough time) 4 - 8 hours: 4H/Silver Shield® (> 0.07 mm)

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

**Body protection** : Not applicable.

**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** : If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits. By spraying : particulate filter (FFP2 / N95). In confined spaces, use compressed-air or fresh-air respiratory equipment.



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**SECTION 8: Exposure controls/personal protection****Environmental exposure controls** : Do not allow to enter drains or watercourses.**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**

<b>Physical state</b>	: Liquid.
<b>Colour</b>	: White., A-base, B-base, C-base, Red
<b>Odour</b>	: Characteristic.
<b>Odour threshold</b>	: Not applicable.
<b>Melting point/freezing point</b>	: 0
<b>Initial boiling point and boiling range</b>	: Lowest known value: 100°C (212°F) (water). Weighted average: 103.04°C (217.5°F)
<b>Flammability</b>	: Not applicable.
<b>Lower and upper explosion limit</b>	: 2.6 - 12.6%
<b>Flash point</b>	: Not applicable.
<b>Auto-ignition temperature</b>	: Not applicable.
<b>Decomposition temperature</b>	: Not available.
<b>pH</b>	: 7.8 to 8.4
<b>Viscosity</b>	: Kinematic (40°C): >20.5 mm <sup>2</sup> /s
<b>Solubility in water</b>	: cold water Easily soluble hot water Easily soluble
<b>Partition coefficient: n-octanol/ water</b>	: Not available.
<b>Vapour pressure</b>	: Highest known value: 3.2 kPa (23.8 mm Hg) (at 20°C) (water). Weighted average: 3.09 kPa (23.18 mm Hg) (at 20°C)
<b>Evaporation rate</b>	: Highest known value: 0.36 (water) Weighted average: 0.35 compared with butyl acetate
<b>Density</b>	: 1.08 to 1.28 g/cm <sup>3</sup>
<b>Vapour density</b>	: Highest known value: 2.6 (Air = 1) (propylene glycol).
<b>Explosive properties</b>	: Not available.
<b>Oxidising properties</b>	: Not available.
<b>Particle characteristics</b>	
<b>Median particle size</b>	: Not applicable.

**9.2 Other information**

No additional information.

**SECTION 10: Stability and reactivity**

<b>10.1 Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<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.
<b>10.4 Conditions to avoid</b>	: When exposed to high temperatures may produce hazardous decomposition products.
<b>10.5 Incompatible materials</b>	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.

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**SECTION 10: Stability and reactivity**

**10.6 Hazardous decomposition products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

There are no data available on the mixture itself. The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains 3-iodo-2-propynyl butylcarbamate (IPBC), 1,2-benzisothiazol-3(2H)-one (BIT), C(M)IT/MIT (3:1), 2-methyl-2H-isothiazol-3-one (MIT). May produce an allergic reaction.

**Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
2-butoxyethanol	LD50 Oral	Guinea pig - Male, Female	1414 mg/kg	-
	LD50 Oral	Rat - Male, Female	1300 mg/kg	-
3-iodo-2-propynyl butylcarbamate (IPBC)	LD50 Oral	Rat	1470 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	40 mg/l	4 hours
1,2-benzisothiazol-3(2h)-one (BIT)	LD50 Oral	Rat	485 mg/kg	-
	LD50 Oral	Rat	53 mg/kg	-
C(M)IT/MIT (3:1)	LD50 Oral	Rat	53 mg/kg	-

**Acute toxicity estimates**

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
OPTIMAL Vindu og dør	N/A	N/A	N/A	337.3	119.0
2-butoxyethanol	1200	N/A	N/A	3	N/A
3-iodo-2-propynyl butylcarbamate (IPBC)	500	N/A	N/A	N/A	0.5
1,2-benzisothiazol-3(2h)-one (BIT)	500	N/A	N/A	N/A	N/A
pyridine-2-thiol 1-oxide, sodium salt	500	790	N/A	N/A	0.5
C(M)IT/MIT (3:1)	53	50	N/A	0.5	N/A
2-methyl-2H-isothiazol-3-one (MIT)	100	300	N/A	0.5	N/A

**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-butoxyethanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
3-iodo-2-propynyl butylcarbamate (IPBC)	Eyes - Irritant	Mammal - species unspecified	-	-	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-
1,2-benzisothiazol-3(2h)-one (BIT)	Eyes - Irritant	Mammal - species unspecified	-	-	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-

**Sensitisation**

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**SECTION 11: Toxicological information**

Product/ingredient name	Route of exposure	Species	Result
3-iodo-2-propynyl butylcarbamate (IPBC)	skin	Mammal - species unspecified	Sensitising
1,2-benzisothiazol-3(2h)-one (BIT)	skin	Mouse	Sensitising
C(M)IT/MIT (3:1)	skin	Mammal - species unspecified	Sensitising
2-methyl-2H-isothiazol-3-one (MIT)	skin	Mammal - species unspecified	Sensitising

**Mutagenicity**

No known significant effects or critical hazards.

**Carcinogenicity**

No known significant effects or critical hazards.

**Reproductive toxicity****Developmental effects** : No known significant effects or critical hazards.**Fertility effects** : No known significant effects or critical hazards.**Teratogenicity**

No known significant effects or critical hazards.

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

Based on available data, the classification criteria are not met.

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

Product/ingredient name	Category	Route of exposure	Target organs
3-iodo-2-propynyl butylcarbamate (IPBC)	Category 1	-	trachea
pyridine-2-thiol 1-oxide, sodium salt	Category 1	-	-

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**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**There are no data available on the mixture itself.  
Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

Product/ingredient name	Result	Species	Exposure
2-butoxyethanol	Acute EC50 1000 mg/l Fresh water Acute LC50 1000 mg/l Marine water	Daphnia - Daphnia magna Crustaceans - Chaetogammarus marinus - Young	48 hours 48 hours
3-iodo-2-propynyl butylcarbamate (IPBC)	Acute EC50 0.022 mg/l Acute EC50 0.16 mg/l Acute LC50 0.067 mg/l	Algae - Scenedesmus subspicatus Crustaceans - Daphnia magna Fish - Oncorhynchus mykiss	72 hours 48 hours 96 hours

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1,2-benzisothiazol-3(2h)-one (BIT)	Chronic NOEC 70 ppb Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute EC50 0.15 mg/l	Algae - Slenastrum capricornutum	72 hours
C(M)IT/MIT (3:1)	Acute EC50 1.05 mg/l	Crustaceans - Daphnia magna	96 hours
	Acute LC50 1.4 mg/l	Fish - Onchorhynchus mykiss	96 hours
	Acute EC50 0.048 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 0.0052 mg/l	Algae - Skeletonema costatum	48 hours
	Acute EC50 0.1 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 0.22 mg/l	Fish - Oncorhynchus mykiss	96 hours
	Acute NOEC 0.00064 mg/l	Algae - Skeletonema costatum	48 hours
	Chronic NOEC 0.0012 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
2-methyl-2H-isothiazol-3-one (MIT)	Chronic NOEC 0.004 mg/l	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.098 mg/l	Fish - Oncorhynchus mykiss	28 days
	Acute EC50 0.445 mg/l	Algae	24 hours
	Acute EC50 2.94 mg/l	Daphnia	48 hours
	Acute LC50 6 mg/l	Fish	96 hours

**Conclusion/Summary** : This material is harmful to aquatic life with long lasting effects.

### 12.2 Persistence and degradability

**Conclusion/Summary** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
3-iodo-2-propynyl butylcarbamate (IPBC)	-	-	Readily
C(M)IT/MIT (3:1)	-	-	Not readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
2-butoxyethanol	0.81	-	low
pyridine-2-thiol 1-oxide, sodium salt	0.00229	-	low
C(M)IT/MIT (3:1)	-	3.16	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

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.

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**SECTION 13: Disposal considerations**

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).

**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** : Yes.

**Disposal considerations** : Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. 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.

**European waste catalogue (EWC)**

The European Waste Catalogue classification of this product, when disposed of as waste, is:

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

**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.

**Disposal considerations** : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.

Type of packaging	European waste catalogue (EWC)
CEPE Guidelines	15 01 10* packaging containing residues of or contaminated by hazardous substances

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**SECTION 14: Transport information**

	ADR/RID	ADN	IMDG	IATA
<b>14.1 UN number or ID number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-	-
<b>14.4 Packing group</b>	-	-	-	-

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## SECTION 14: Transport information

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 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 \(REACH\)](#)

[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** : Not applicable.

[Other EU regulations](#)

**VOC** : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

**VOC for Ready-for-Use Mixture** : Not available.

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

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

[Ozone depleting substances \(1005/2009/EU\)](#)

Not listed.

[Prior Informed Consent \(PIC\) \(649/2012/EU\)](#)

Not listed.

[Persistent Organic Pollutants](#)

Not listed.

[Seveso Directive](#)

This product is not controlled under the Seveso Directive.

[Norway](#)

**Product registration number** : 91204

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## SECTION 15: Regulatory information

### 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.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

**15.2 Chemical safety assessment** : Not applicable.

## 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]

Classification	Justification
Aquatic Chronic 3, H412	Calculation method

### Full text of abbreviated H statements

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H311	Toxic 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.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
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.
EUH070	Toxic by eye contact.
EUH071	Corrosive to the respiratory tract.

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

*OPTIMAL Vindu og dør***SECTION 16: Other information**

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 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
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

**Date of printing** : 24.03.2023**Date of issue/ Date of revision** : 24.03.2023**Date of previous issue** : 23.03.2023**Version** : 1.01**Notice to reader**

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