

# SAFETY DATA SHEET



OPAL 20 - All variants

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

### 1.1 Product identifier

**Product name** : OPAL 20 - All variants

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

**Product use** : Lacquers.

### 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 adipohydrazide, 1,2-benzisothiazol-3(2H)-one, reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) and 2-Methyl-1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.

Safety data sheet available on request. Contains biocidal products for in-can preservation: BIT and Bronopol and DTBMA and C(M)IT/MIT (3:1) and MBIT.

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

## 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 |
|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| adipohydrazide                                                                                                                        | REACH #:<br>01-2119962900-36<br>EC: 213-999-5<br>CAS: 1071-93-8 | ≤0.3    | Skin Sens. 1, H317<br>Aquatic Chronic 2, H411                                                                                                                                                                                                           | -                                                                                                                                                                                                                                                                           | [1]  |
| 1,2-benzisothiazol-3(2H)-one                                                                                                          | EC: 220-120-9<br>CAS: 2634-33-5<br>Index: 613-088-00-6          | <0.036  | Acute Tox. 4, H302<br>Acute Tox. 2, H330<br>Skin Irrit. 2, H315<br>Eye Dam. 1, H318<br>Skin Sens. 1A, H317<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410                                                                                          | ATE [Oral] = 450 mg/kg<br>ATE [Inhalation (dusts and mists)] = 0.21 mg/l<br>Skin Sens. 1, H317: C ≥ 0.036%<br>M [Acute] = 1<br>M [Chronic] = 1                                                                                                                              | [1]  |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) | EC: 911-418-6<br>CAS: 55965-84-9<br>Index: 613-167-00-5         | <0.0015 | Acute Tox. 3, H301<br>Acute Tox. 2, H310<br>Acute Tox. 2, H330<br>Skin Corr. 1C, H314<br>Eye Dam. 1, H318<br>Skin Sens. 1A, H317<br>Aquatic Acute 1, H400<br>Aquatic Chronic 1, H410<br>EUH071                                                          | ATE [Oral] = 53 mg/kg<br>ATE [Dermal] = 50 mg/kg<br>ATE [Inhalation (vapours)] = 0.5 mg/l<br>Skin Corr. 1C, H314: C ≥ 0.6%<br>Eye Dam. 1, H318: C ≥ 0.6%<br>Eye Irrit. 2, H319: 0.06% ≤ C < 0.6%<br>Skin Sens. 1, H317: C ≥ 0.0015%<br>M [Acute] = 100<br>M [Chronic] = 100 | [1]  |
| 2-Methyl-1,2-benzisothiazol-3(2H)-one                                                                                                 | EC: 695-989-4<br>CAS: 2527-66-4<br>Index: 613-336-00-3          | <0.0015 | Acute Tox. 3, H301<br>Acute Tox. 4, H312<br>Skin Corr. 1C, H314<br>Eye Dam. 1, H318<br>Skin Sens. 1A, H317<br>Aquatic Acute 1, H400<br>Aquatic Chronic 2, H411<br>EUH071<br><b>See Section 16 for the full text of the H statements declared above.</b> | ATE [Oral] = 175 mg/kg<br>ATE [Dermal] = 1100 mg/kg<br>Skin Sens. 1, H317: C ≥ 0.0015%<br>M [Acute] = 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.

## SECTION 3: Composition/information on ingredients

### Type

[1] Substance classified with a health or environmental hazard

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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- 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** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- 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:  
carbon dioxide  
carbon monoxide  
nitrogen 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. Absorb with an inert 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. Dispose of via a licensed waste disposal contractor. 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.

- 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. See Section 10 for incompatible materials before handling or use.

### 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  ethyldiglycol<br><br>reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)<br><br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br><br> ethyldiglycol<br><br>1,2-benzisothiazol-3(2H)-one<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known.<br>No exposure limit value known. | <b>Regulation on Limit Values - MAC (Austria, 4/2021)</b><br>PEAK 15 minutes: 140 mg/m <sup>3</sup> 4 times per shift.<br>PEAK 15 minutes: 24 ppm 4 times per shift.<br>TWA 8 hours: 35 mg/m <sup>3</sup> .<br>TWA 8 hours: 6 ppm.<br><br><b>Regulation on Limit Values - MAC (Austria, 4/2021) [5-Chlor-2-methyl-2,3-dihydroisothiazol-3-on und 2-Methyl-2,3-dihydroisothiazol-3-on (Gemisch im Verhältnis 3:1)]</b> Skin sensitiser.<br>TWA 8 hours: 0.05 mg/m <sup>3</sup> .<br><br><b>TRGS 900 OEL (Germany, 6/2024)</b><br>TWA 8 hours: 35 mg/m <sup>3</sup> .<br>PEAK 15 minutes: 70 mg/m <sup>3</sup> .<br>TWA 8 hours: 6 ppm.<br>PEAK 15 minutes: 12 ppm.<br><b>DFG MAC-values list (Germany, 7/2023)</b> Develop C.<br>PEAK 15 minutes: 100 mg/m <sup>3</sup> 4 times per shift [Interval: 1 hour].<br>Form: inhalable fraction.<br>TWA 8 hours: 50 mg/m <sup>3</sup> . Form: inhalable fraction.<br><b>DFG MAC-values list (Germany, 7/2023)</b> Skin sensitiser. |

## SECTION 8: Exposure controls/personal protection

|                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>No exposure limit value known.</p> <p>Ethyldiglycol</p>                                                                                                                                                                                                                               | <p><b>Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024)</b></p> <p>KTV 15 minutes: 12 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].</p> <p>TWA 8 hours: 6 ppm.</p> <p>KTV 15 minutes: 70 mg/m<sup>3</sup> 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].</p> <p>TWA 8 hours: 35 mg/m<sup>3</sup>.</p> |
| <p>No exposure limit value known.</p> <p>Ethyldiglycol</p>                                                                                                                                                                                                                               | <p><b>Work environment authority Regulation 2018:1 (Sweden, 11/2022)</b> Absorbed through skin.</p> <p>TWA 8 hours: 15 ppm.</p> <p>TWA 8 hours: 80 mg/m<sup>3</sup>.</p> <p>STEL 15 minutes: 30 ppm.</p> <p>STEL 15 minutes: 170 mg/m<sup>3</sup>.</p>                                                                                                                                                                                                                                              |
| <p>Ethyldiglycol</p> <p>reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)</p> <p>No exposure limit value known.</p> | <p><b>SUVA (Switzerland, 1/2024)</b></p> <p>STEL 15 minutes: 100 mg/m<sup>3</sup>. Form: Inhalable fraction of Vapor and aerosols.</p> <p>TWA 8 hours: 50 mg/m<sup>3</sup>. Form: Inhalable fraction of Vapor and aerosols.</p> <p><b>SUVA (Switzerland, 1/2024)</b> Sensitiser.</p> <p>STEL 15 minutes: 0.4 mg/m<sup>3</sup>. Form: Inhalable fraction.</p> <p>TWA 8 hours: 0.2 mg/m<sup>3</sup>. Form: Inhalable fraction.</p>                                                                    |

### Biological exposure indices

| Product/ingredient name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Exposure indices |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| <p>No exposure indices known.</p> <p>No exposure indices known.</p> <p>No exposure indices known.</p> <p>No exposure indices known.</p> <p>No exposure indices known.</p> <p>No exposure indices known.</p> <p>No exposure indices known.</p> <p>No exposure indices known.</p> <p>No exposure indices known.</p> <p>No exposure indices known.</p> <p>No exposure indices known.</p> <p>No exposure indices known.</p> <p>No exposure indices known.</p> <p>No exposure indices known.</p> <p>No exposure indices known.</p> <p>No exposure indices known.</p> <p>No exposure indices known.</p> <p>No exposure indices known.</p> <p>No exposure indices known.</p> |                  |

## SECTION 8: Exposure controls/personal protection

No exposure indices known.  
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No exposure indices known.  
No exposure indices known.  
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

adipohydrazide

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

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

#### Result

##### DNEL - Workers - Long term - Inhalation

17.5 mg/m<sup>3</sup>

Effects: Systemic

##### DNEL - General population - Long term - Dermal

0.345 mg/kg bw/day

Effects: Systemic

##### DNEL - Workers - Long term - Dermal

0.966 mg/kg bw/day

Effects: Systemic

##### DNEL - General population - Long term - Inhalation

1.2 mg/m<sup>3</sup>

Effects: Systemic

##### DNEL - Workers - Long term - Inhalation

6.81 mg/m<sup>3</sup>

Effects: Systemic

##### DNEL - General population - Long term - Inhalation

0.02 mg/m<sup>3</sup>

Effects: Local

##### DNEL - Workers - Long term - Inhalation

0.02 mg/m<sup>3</sup>

Effects: Local

##### DNEL - General population - Short term - Inhalation

0.04 mg/m<sup>3</sup>

Effects: Local

##### DNEL - Workers - Short term - Inhalation

0.04 mg/m<sup>3</sup>

Effects: Local

##### DNEL - General population - Long term - Oral



## SECTION 8: Exposure controls/personal protection

0.09 mg/kg bw/day

Effects: Systemic

**DNEL - General population - Short term - Oral**

0.11 mg/kg bw/day

Effects: Systemic

### PNECs

Not available.

### 8.2 Exposure controls

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

#### 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 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.



## SECTION 9: Physical and chemical properties

**Melting point/freezing point** : Not available.

**Initial boiling point and boiling range** :

| Ingredient name | °C  | °F    | Method |
|-----------------|-----|-------|--------|
| water           | 100 | 212   |        |
| Ethylidiglycol  | 196 | 384.8 |        |

**Flammability** : Not available.

**Lower and upper explosion limit** : Lower: 1.2% (2-(2-ethoxyethoxy)ethanol)  
Upper: 23.5% (2-(2-ethoxyethoxy)ethanol)

**Flash point** : Closed cup: >100°C (>212°F)

**Auto-ignition temperature** :

| Ingredient name | °C  | °F    | Method |
|-----------------|-----|-------|--------|
| Ethylidiglycol  | 204 | 399.2 |        |

**Decomposition temperature** : Not available.

**pH** : 7.5 to 8.5 [Conc. (% w/w): 100%]

**Viscosity** : Not available.

**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   |        |                         |     |        |
| Ethylidiglycol  | 0.14                    | 0.019 |        |                         |     |        |

**Relative density** : Not available.

**Density** : 1.1 g/cm<sup>3</sup>

**Vapour density** : Not available.

### Particle characteristics

**Median particle size** : Not applicable.

## 9.2 Other information

### 9.2.1 Information with regard to physical hazard classes

**Explosive properties** : Not available.

**Oxidising properties** : Not available.

### 9.2.2 Other safety characteristics

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.

**Date of issue/Date of revision** : 24/02/2025 **Date of previous issue** : 13/01/2025

**Version** : 7 **9/19**

OPAL 20 - All variants

**Label No** : 109243

## SECTION 10: Stability and reactivity

**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

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

##### Result

**Rat - Oral - LD50**

1020 mg/kg

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

**Rat - Oral - LD50**

53 mg/kg

Toxic effects: Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Lung, Thorax, or Respiration - Respiratory depression

**Conclusion/Summary [Product]** : Not available.

#### 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) |
|---------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| OPAL 20                                                                                                                               | N/A          | N/A            | 630867.2                 | N/A                         | N/A                                 |
| 1,2-benzisothiazol-3(2H)-one                                                                                                          | 450          | N/A            | N/A                      | N/A                         | 0.21                                |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) | 53           | 50             | N/A                      | 0.5                         | N/A                                 |
| 2-Methyl-1,2-benzisothiazol-3(2H)-one                                                                                                 | 175          | 1100           | N/A                      | N/A                         | N/A                                 |

#### Skin corrosion/irritation

##### Product/ingredient name

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

##### Result

**Human - Skin - Mild irritant**

Duration of treatment/exposure: 48 hours

Amount/concentration applied: 5 %

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

**Human - Skin - Severe irritant**

Amount/concentration applied: 0.01 %

**Conclusion/Summary [Product]** : Not available.

#### Serious eye damage/eye irritation

Not available.

**Conclusion/Summary [Product]** : Not available.

#### Respiratory corrosion/irritation

Not available.

**Conclusion/Summary [Product]** : Not available.

## SECTION 11: Toxicological information

### Respiratory or skin sensitization

Not available.

#### **Skin**

**Conclusion/Summary [Product]** : Not available.

#### **Respiratory**

**Conclusion/Summary [Product]** : Not available.

### Germ cell mutagenicity

Not available.

**Conclusion/Summary [Product]** : Not available.

### Carcinogenicity

Not available.

**Conclusion/Summary [Product]** : Not available.

### Reproductive toxicity

Not available.

**Conclusion/Summary [Product]** : Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### 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

## SECTION 11: Toxicological information

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

**Conclusion/Summary [Product]** : 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.

**Conclusion/Summary [Product]** : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

### 11.2.2 Other information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### **Product/ingredient name**

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

#### **Result**

##### **Acute - LC50 - Fresh water**

OECD [Fish, Acute Toxicity Test]  
Fish - Trout - *Onorhynchus Mykiss*  
1.9 mg/l [96 hours]

##### **Acute - EC50**

OECD 202 [Daphnia sp. Acute Immobilization Test and Reproduction Test]  
Daphnia - Daphnia - *Daphnia Magna*  
3.7 mg/l [48 hours]

##### **Acute - EC50 - Marine water**

OECD 201 [Alga, Growth Inhibition Test]  
Algae - Algae - *Skeletonema Costatum*  
0.36 mg/l [72 hours]

##### **Acute - NOEC - Marine water**

OECD 201 [Alga, Growth Inhibition Test]  
Algae - Algae - *Skeletonema Costatum*  
0.15 mg/l [72 hours]

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

##### **Acute - EC50 - Fresh water**

US EPA  
Daphnia - Water flea - *Daphnia magna*  
Age: <24 hours  
0.92 ppm [48 hours]  
Effect: Intoxication

##### **Acute - EC50 - Fresh water**

US EPA  
Algae - Green algae - *Pseudokirchneriella subcapitata*  
0.22 ppm [96 hours]  
Effect: Population

##### **Acute - LC50 - Fresh water**

US EPA  
Fish - Rainbow trout, donaldson trout - *Oncorhynchus mykiss* -

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## SECTION 12: Ecological information

Juvenile (Fledgling, Hatchling, Weanling)

0.24 ppm [96 hours]

Effect: Mortality

### Chronic - NOEC

US EPA

Fish - Fathead minnow - *Pimephales promelas*

0.16 ppm [32 days]

**Conclusion/Summary [Product]** : Not available.

### 12.2 Persistence and degradability

#### Product/ingredient name

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

#### Result

EU

24% [28 days]

**Conclusion/Summary [Product]** : Not available.

| Product/ingredient name      | Aquatic half-life | Photolysis | Biodegradability |
|------------------------------|-------------------|------------|------------------|
| 1,2-benzisothiazol-3(2H)-one | -                 | -          | Inherent         |

### 12.3 Bioaccumulative potential

| Product/ingredient name      | LogP <sub>ow</sub> | BCF | Potential |
|------------------------------|--------------------|-----|-----------|
| 1,2-benzisothiazol-3(2H)-one | -                  | 3.2 | Low       |

### 12.4 Mobility in soil

#### Soil/water partition coefficient

| Product/ingredient name               | logK <sub>oc</sub> | K <sub>oc</sub> |
|---------------------------------------|--------------------|-----------------|
| adipohydrazide                        | 1.74               | 55.2165         |
| 1,2-benzisothiazol-3(2H)-one          | 1.86               | 73.142          |
| 2-Methyl-1,2-benzisothiazol-3(2H)-one | 1.72               | 52.5063         |

#### Results of PMT and vPvM assessment

| Product/ingredient name                                                                                                               | PMT | P  | M  | T  | vPvM | vP | vM |
|---------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|----|------|----|----|
| adipohydrazide                                                                                                                        | No  | No | No | No | No   | No | No |
| 1,2-benzisothiazol-3(2H)-one                                                                                                          | No  | No | No | No | No   | No | No |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) | No  | No | No | No | No   | No | No |
| 2-Methyl-1,2-benzisothiazol-3(2H)-one                                                                                                 | No  | No | No | No | No   | No | No |

**Mobility** : Not available.

**Conclusion/Summary** : The product does not meet the criteria to be considered as a PMT or vPvM.

### 12.5 Results of PBT and vPvB assessment

#### Regulation (EC) No. 1907/2006 [REACH]

## SECTION 12: Ecological information

| Product/ingredient name                                                                                                               | PBT | P  | B  | T  | vPvB | vP | vB |
|---------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|----|------|----|----|
| adipohydrazide                                                                                                                        | No  | No | No | No | No   | No | No |
| 1,2-benzisothiazol-3(2H)-one                                                                                                          | No  | No | No | No | No   | No | No |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) | No  | No | No | No | No   | No | No |
| 2-Methyl-1,2-benzisothiazol-3(2H)-one                                                                                                 | No  | No | No | No | No   | No | No |

### Regulation (EC) No. 1272/2008 [CLP]

| Product/ingredient name                                                                                                               | PBT | P  | B  | T  | vPvB | vP | vB |
|---------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|----|------|----|----|
| adipohydrazide                                                                                                                        | No  | No | No | No | No   | No | No |
| 1,2-benzisothiazol-3(2H)-one                                                                                                          | No  | No | No | No | No   | No | No |
| reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) | No  | No | No | No | No   | No | No |
| 2-Methyl-1,2-benzisothiazol-3(2H)-one                                                                                                 | No  | No | No | No | No   | No | No |

**Conclusion/Summary Regulation (EC) No. 1272/2008 [CLP]** : The product does not meet the criteria to be considered as a PBT or vPvB.

### 12.6 Endocrine disrupting properties

Not available.

**Conclusion/Summary [Product]** : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

### 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.

**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.

**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 (EU 2024/590)**

Not listed.

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

Not listed.

**Persistent Organic Pollutants**

Not listed.

**Seveso Directive**



## SECTION 15: Regulatory information

This product is not controlled under the Seveso Directive.

### National regulations

#### Austria

**Limitation of the use of organic solvents** : Permitted.

#### Belgium

#### Czech Republic

**Storage code** : IV

#### Denmark

**Fire class** : IV-1

**MAL-code** : 0-1

**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: 0-1

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

- Arm protectors must be worn.

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.

- Gas filter mask 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.

- Full mask with combined filter, coveralls and hood must be worn.

**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

#### Finland

## SECTION 15: Regulatory information

### France

**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** : 1

### Technical instruction on air quality control (TA Luft)

| Number [Class] | Description        | %    |
|----------------|--------------------|------|
| 5.2.1          | Total dust         | 29.4 |
| 5.2.5          | Organic substances | 5    |
| 5.2.5 [I]      | Organic substances | 4.1  |

**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

**Ministry of Social Affairs and Employment (SZW) - Carcinogenic substances and processes, mutagenic or reprotoxic substances**

| Ingredient name | Carcinogen | Mutagen | Reproductive toxicity - Fertility | Reproductive toxicity - Development | Harmful via breastfeeding |
|-----------------|------------|---------|-----------------------------------|-------------------------------------|---------------------------|
| ethanol         | Listed     | -       | Fertility 1A                      | Development 1A                      | Listed                    |

**Water Discharge Policy (ABM)** : A(4) Low hazard for aquatic organisms, may have long-term hazardous effects in aquatic environment. Decontamination effort: A

### 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.

#### 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.                                 |
| H310   | Fatal in contact with skin.                           |
| H312   | Harmful in contact with skin.                         |
| H314   | Causes severe skin burns and eye damage.              |
| H315   | Causes skin irritation.                               |
| H317   | May cause an allergic skin reaction.                  |
| H318   | Causes serious eye damage.                            |
| H330   | Fatal if inhaled.                                     |
| 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.      |
| 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 2 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 |
| Eye Dam. 1        | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1  |
| Skin Corr. 1C     | SKIN CORROSION/IRRITATION - Category 1C         |
| Skin Irrit. 2     | SKIN CORROSION/IRRITATION - Category 2          |
| Skin Sens. 1      | SKIN SENSITISATION - Category 1                 |
| Skin Sens. 1A     | SKIN SENSITISATION - Category 1A                |

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OPAL 20

All variants

### 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.

