

# SAFETY DATA SHEET



## Guard Shield A014

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

#### 1.1 Product identifier

**Product name** : Guard Shield A014  
**Product code** : 49845  
**Product type** : Powder coating.  
**Other means of identification** : Not available.

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

Use in coatings - Industrial use  
Use in coatings - Professional use

#### 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

### 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]

Eye Dam. 1, H318  
Skin Sens. 1, H317  
Repr. 1B, H360FD  
Aquatic Chronic 1, H410

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



**Hazard pictograms** :



**Signal word** : Danger.

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## SECTION 2: Hazards identification

<b>Hazard statements</b>	: H317 - May cause an allergic skin reaction. H318 - Causes serious eye damage. H360FD - May damage fertility. May damage the unborn child. H410 - Very toxic to aquatic life with long lasting effects.
<b><u>Precautionary statements</u></b>	
<b>General</b>	: Not applicable.
<b>Prevention</b>	: P201 - Obtain special instructions before use. P280 - Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. P273 - Avoid release to the environment. P261 - Avoid breathing dust.
<b>Response</b>	: P391 - Collect spillage. P308 + P313 - IF exposed or concerned: Get medical advice or attention. P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention. P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
<b>Storage</b>	: Not applicable.
<b>Disposal</b>	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Hazardous ingredients</b>	:  Bisphenol a phenol, polymer with formaldehyde, glycidyl ether 1h-imidazole, 2-methyl-
<b>Supplemental label elements</b>	:  UH205 - Contains epoxy constituents. May produce an allergic reaction. EUH212 - Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.
<b>Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles</b>	: Restricted to professional users.
<b><u>Special packaging requirements</u></b>	
<b>Containers to be fitted with child-resistant fastenings</b>	: Not applicable.
<b>Tactile warning of danger</b>	: Not applicable.

### 2.3 Other hazards

<b>Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII</b>	: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
<b>Other hazards which do not result in classification</b>	: May cause endocrine disruption.

 The mixture may be a skin sensitiser. It may also be a skin irritant and repeated contact may increase this effect.

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**SECTION 3: Composition/information on ingredients****3.2 Mixtures** : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
titanium dioxide	REACH #: 01-2119489379-17 EC: 236-675-5 CAS: 13463-67-7 Index: 022-006-00-2	≥25 - ≤50	Carc. 2, H351 (inhalation)	-	[1] [2] [*]
bisphenol a	EC: 201-245-8 CAS: 80-05-7 Index: 604-030-00-0	≤10	Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360F STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 10	[1] [2] [3]
1,2,4,5-benzenetetracarboxylic acid, compd. with 4,5-dihydro-2-phenyl-1h-imidazole (1:1)	REACH #: 01-2119453802-40 EC: 259-224-4 CAS: 54553-90-1	≤10	Aquatic Chronic 3, H412	-	[1]
alumina	REACH #: 01-2119529248-35 EC: 215-691-6 CAS: 1344-28-1	≤3	Not classified.	-	[2]
quartz, alveolar (>10 µm)	EC: 238-878-4 CAS: 14808-60-7	≤3	Not classified.	-	[2]
phenol, polymer with formaldehyde, glycidyl ether	REACH #: 01-2119454392-40 EC: 701-263-0 CAS: 28064-14-4	<1	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411	-	[1]
1h-imidazole, 2-methyl-	EC: 211-765-7 CAS: 693-98-1	<1	Acute Tox. 4, H302 Skin Corr. 1C, H314 Eye Dam. 1, H318 Carc. 2, H351 Repr. 1B, H360D	ATE [Oral] = 500 mg/kg	[1]
2,4,8,10-tetraoxa-3,9-diphoshaspiro[5.5]undecane, 3,9-bis[2,4-bis(1,1-dimethylethyl)phenoxy]-	REACH #: 01-2119977073-34 EC: 247-952-5 CAS: 26741-53-7	≤1	Aquatic Chronic 1, H410  <b>See Section 16 for the full text of the H statements declared above.</b>	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

[3] Substance of equivalent concern

[\*] The classification as a carcinogen by inhalation applies only to mixtures placed on the market in powder form containing 1% or more of titanium dioxide particles with aerodynamic diameter ≤ 10 µm not bound within a matrix. This mixture contains ≥ 1% of titanium dioxide. The Annex VI classification of titanium dioxide does not apply to this mixture according to Note 10.

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**SECTION 3: Composition/information on ingredients**

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

**SECTION 4: First aid measures****4.1 Description of first aid measures**

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- 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. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

**4.2 Most important symptoms and effects, both acute and delayed****Over-exposure signs/symptoms**

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
stomach pains  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations

**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.

See toxicological information (Section 11)

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO<sub>2</sub> blanket, water spray or mist.

**Unsuitable extinguishing media** : Do not use water jet.  
Do not use inert gas under high pressure (e.g. CO<sub>2</sub>).

### 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.  
Fine dust clouds may form explosive mixtures with air.

### 5.3 Advice for firefighters

**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** : Exclude sources of ignition and ventilate the area. Avoid breathing dust. 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 an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Do not use a dry brush as dust clouds or static can be created.

**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).

**Advice should be taken from a competent occupational health practitioner on the assessment of employees with skin or respiratory complaints before the individual is exposed to the uncured product.**

### 7.1 Precautions for safe handling

Precautions should be taken to prevent the formation of dusts in concentrations above flammable, explosive or occupational exposure limits.

Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources.

Mixture may charge electrostatically: always use earthing leads when transferring from one container to another.

Operators should wear antistatic footwear and clothing and floors should be of the conducting type.

Keep away from heat, sparks and flame.

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## SECTION 7: Handling and storage

Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.

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).

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.

During stoving/curing caprolactam will be released. Efficient oven extraction must be provided to safely discharge caprolactam from the workplace.

Welding, grinding and other hot work on the already-coated substrate may cause free isocyanates to be formed and released.

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

Store in accordance with local regulations.

#### Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight.

Keep container tightly closed.

Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

#### Seveso Directive - Reporting thresholds

##### Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E1	100 tonne	200 tonne

See Technical Data Sheet / packaging for further information.

### 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

Dust Limit : 10 mg/m<sup>3</sup> (TWA of total inhalable dust) and 4 mg/m<sup>3</sup> (TWA of respirable)

Product/ingredient name	Exposure limit values
titanium dioxide	<b>FOR-2011-12-06-1358 (Norway, 12/2022).</b> TWA: 5 mg/m <sup>3</sup> 8 hours.
bisphenol a	<b>FOR-2011-12-06-1358 (Norway, 12/2022). Skin sensitiser. Reproductive toxin. Notes:</b> TWA: 2 mg/m <sup>3</sup> 8 hours. Form: inhalable
alumina	<b>FOR-2011-12-06-1358 (Norway, 12/2022).</b> TWA: 10 mg/m <sup>3</sup> 8 hours.
quartz, alveolar (>10 µm)	<b>FOR-2011-12-06-1358 (Norway, 12/2022). Carcinogen.</b> TWA: 0.3 mg/m <sup>3</sup> 8 hours. Form: Total dust

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**SECTION 8: Exposure controls/personal protection**

**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	
Titanium dioxide	DNEL	Long term Inhalation	28 µg/m <sup>3</sup>	General population	Local	
	DNEL	Long term Inhalation	170 µg/m <sup>3</sup>	Workers	Local	
bisphenol a	DNEL	Short term Dermal	24 µg/kg bw/day	General population	Systemic	
	DNEL	Long term Dermal	24 µg/kg bw/day	General population	Systemic	
	DNEL	Short term Oral	53 µg/kg bw/day	General population	Systemic	
	DNEL	Long term Oral	53 µg/kg bw/day	General population	Systemic	
	DNEL	Short term Dermal	66 µg/kg bw/day	Workers	Systemic	
	DNEL	Long term Dermal	66 µg/kg bw/day	Workers	Systemic	
	DNEL	Short term Inhalation	1 mg/m <sup>3</sup>	General population	Local	
	DNEL	Long term Inhalation	1 mg/m <sup>3</sup>	General population	Local	
	DNEL	Short term Inhalation	1 mg/m <sup>3</sup>	General population	Systemic	
	DNEL	Long term Inhalation	1 mg/m <sup>3</sup>	General population	Systemic	
	DNEL	Short term Inhalation	2 mg/m <sup>3</sup>	Workers	Local	
	DNEL	Long term Inhalation	2 mg/m <sup>3</sup>	Workers	Local	
	DNEL	Short term Inhalation	2 mg/m <sup>3</sup>	Workers	Systemic	
	DNEL	Long term Inhalation	2 mg/m <sup>3</sup>	Workers	Systemic	
	DNEL	Long term Oral	0.272 mg/kg bw/day	General population	Systemic	
	1,2,4,5-benzenetetracarboxylic acid, compd. with 4,5-dihydro-2-phenyl-1h-imidazole (1:1)	DNEL	Long term Dermal	0.272 mg/kg bw/day	General population	Systemic
DNEL		Long term Inhalation	0.473 mg/m <sup>3</sup>	General population	Systemic	
DNEL		Long term Dermal	0.544 mg/kg bw/day	Workers	Systemic	
DNEL		Long term Inhalation	1.92 mg/m <sup>3</sup>	Workers	Systemic	
1h-imidazole, 2-methyl-		DNEL	Long term Oral	0.02 mg/kg bw/day	General population	Systemic
		DNEL	Long term Dermal	0.04 mg/kg bw/day	Workers	Systemic
		DNEL	Long term Inhalation	0.3 mg/m <sup>3</sup>	Workers	Systemic



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## SECTION 8: Exposure controls/personal protection

2,4,8,10-tetraoxa-3,9-diphosphaspiro[5.5]undecane, 3,9-bis[2,4-bis(1,1-dimethylethyl)phenoxy]-	DNEL	Long term Oral	0.39 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.39 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.68 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	0.78 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2.75 mg/m <sup>3</sup>	Workers	Systemic

### PNECs

No PNECs available

## 8.2 Exposure controls

**Appropriate engineering controls** : Avoid breathing dust. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain exposure to dusts below the OEL, suitable respiratory protection must be worn.

### 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. Contaminated work clothing should not be allowed out of the workplace. 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: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

### 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: neoprene (> 0.35 mm), PVC (> 0.5 mm), nitrile rubber (> 0.75 mm), butyl rubber (> 0.4 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** : Personnel should wear protective clothing. Care should be taken in the selection of protective clothing to ensure that inflammation and irritation of the skin at the neck and wrists through contact with the powder are avoided.



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**SECTION 8: Exposure controls/personal protection**

- 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 workers are exposed to concentrations above the exposure limit, they must use a respirator according to EN 140. If dust is generated and ventilation is inadequate, use respirator that will protect against dust/mist. (FFP2 / N95).
- 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**

- Physical state** : Solid. Powder.
- Colour** : Various.
- Odour** : Odourless.
- Odour threshold** : Not applicable.
- Melting point (dust)** : 85 - 115 °C
- Initial boiling point and boiling range** : Not applicable.
- Lower explosion limit (dust)** : 30 g/m<sup>3</sup> (EN 14034-3)
- Minimum ignition energy (mJ)** : 10 - 30 (EN 13821)
- Flash point** : Not applicable.
- Auto-ignition temperature** : > 400°C
- Decomposition temperature** : >230°C
- pH** : Not applicable.
- Viscosity** : Not applicable.
- Solubility in water** : cold water Not soluble  
hot water Not soluble
- Partition coefficient: n-octanol/ water** : Not applicable.
- Vapour pressure** : Not applicable.
- Evaporation rate** : Not applicable.
- Density** : 1.2 to 1.9 g/cm<sup>3</sup>
- Vapour density** : Not applicable.
- Explosive properties** : Not available.
- Oxidising properties** : Not available.
- Particle characteristics**
- Median particle size** : Not available.

**9.2 Other information**

No additional information.

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**SECTION 10: Stability and reactivity**

- 10.1 Reactivity** : Fine dust clouds may form explosive mixtures with air.
- 10.2 Chemical stability** : Stable under recommended storage and handling conditions (see Section 7).
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- 10.4 Conditions to avoid** : Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame).  
Take precautionary measures against electrostatic discharges.  
To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.  
Prevent dust accumulation.
- 10.5 Incompatible materials** : Not applicable.
- 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****Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
1,2,4,5-benzenetetracarboxylic acid, compd. with 4,5-dihydro-2-phenyl-1h-imidazole (1:1)	LD50 Oral	Rat	7400 mg/kg	-
1h-imidazole, 2-methyl-	LD50 Oral	Mouse	1400 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)
1,2,4,5-benzenetetracarboxylic acid, compd. with 4,5-dihydro-2-phenyl-1h-imidazole (1:1)	7400	N/A	N/A	N/A	N/A
1h-imidazole, 2-methyl-	500	N/A	N/A	N/A	N/A

**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
Titanium dioxide bisphenol a	Skin - Mild irritant	Human	-	72 hours	-
	Eyes - Irritant	Mammal - species unspecified	-	-	-
	Eyes - Severe irritant	Rabbit	-	24 hours 250 Micrograms	-
phenol, polymer with formaldehyde, glycidyl ether	Skin - Mild irritant	Rabbit	-	250 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Mammal - species unspecified	-	-	-
2,4,8,10-tetraoxa-3,9-diphosphaspiro[5.5]undecane, 3,9-bis[2,4-bis(1,1-dimethylethyl)phenoxy]-	Skin - Mild irritant	Mammal - species unspecified	-	-	-
	Skin - Severe irritant	Rabbit	-	0.5 Grams	-

**Sensitisation**

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**SECTION 11: Toxicological information**

Product/ingredient name	Route of exposure	Species	Result
bisphenol a	skin	Mammal - species unspecified	Sensitising
phenol, polymer with formaldehyde, glycidyl ether	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** : May damage the unborn child.**Fertility effects** : May damage fertility.**Teratogenicity**

May damage the unborn child.

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

Product/ingredient name	Category	Route of exposure	Target organs
bisphenol a	Category 3	-	Respiratory tract irritation

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

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

**Aspiration hazard**

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

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

May cause endocrine disruption.

**11.2.2 Other information**

Not available.

**SECTION 12: Ecological information****12.1 Toxicity**

There are no data available on the mixture itself.

Coating powder residues should not be allowed to enter drains or watercourses or be deposited where they could affect ground or surface waters.

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	
titanium dioxide	Acute LC50 3 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours	
	Acute LC50 6.5 mg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours	
	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours	
	bisphenol a	Acute EC50 1.506 mg/l	Algae - Prorocentrum minimum - Exponential growth phase	72 hours
	Acute EC50 1000 µg/l Marine water	Algae - Skeletonema costatum	96 hours	
	Acute EC50 7.75 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours	

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## SECTION 12: Ecological information

1,2,4,5-benzenetetracarboxylic acid, compd. with 4,5-dihydro-2-phenyl-1h-imidazole (1:1)	Acute LC50 1.34 mg/l Marine water	Crustaceans - Americamysis bahia - Larvae	48 hours
	Acute LC50 3.5 mg/l Marine water	Fish - Rivulus marmoratus - Embryo	96 hours
	Chronic NOEC 2 mg/l Fresh water	Algae - Chlorolobion braunii - Exponential growth phase	4 days
	Chronic NOEC 0.05 mg/l Fresh water	Crustaceans - Asellus aquaticus - Juvenile (Fledgling, Hatchling, Weanling)	21 days
	Chronic NOEC 30 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 0.2 µg/l Fresh water Acute EC50 9 mg/l	Fish - Carassius auratus - Adult Algae - Scenedesmus subspicatus	90 days 72 hours
phenol, polymer with formaldehyde, glycidyl ether	Acute EC50 125 mg/l Chronic NOEC 0.64 mg/l Acute EC50 3.3 mg/l	Crustaceans Algae Daphnia	48 hours - 48 hours
	Acute LC50 7.5 mg/l Acute LC50 286000 to 307000 µg/l Fresh water	Fish Fish - Pimephales promelas	96 hours 96 hours
1h-imidazole, 2-methyl- 2,4,8,10-tetraoxa- 3,9-diphosphaspiro[5.5] undecane, 3,9-bis[2,4-bis (1,1-dimethylethyl)phenoxy]-	Acute EC10 15.4 mg/l	Algae	72 hours
	Acute EC50 97 mg/l Acute LC50 70.7 mg/l Chronic NOEC 0.1 mg/l	Algae Fish Daphnia	72 hours 96 hours 21 days

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

### 12.2 Persistence and degradability

**Conclusion/Summary** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
phenol, polymer with formaldehyde, glycidyl ether	-	-	Not readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
bisphenol a	3.4	20 to 67	low
1,2,4,5-benzenetetracarboxylic acid, compd. with 4,5-dihydro-2-phenyl-1h-imidazole (1:1)	1	-	low
1h-imidazole, 2-methyl-	0.24	-	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.

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## SECTION 12: Ecological information

### 12.6 Endocrine disrupting properties

May cause endocrine disruption.

### 12.7 Other adverse effects

No known significant effects or critical hazards.

## 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

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## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
<b>14.1 UN number or ID number</b>	UN3077	UN3077	UN3077	UN3077
<b>14.2 UN proper shipping name</b>	Environmentally hazardous substance, solid, n.o.s. (bisphenol a)	Environmentally hazardous substance, solid, n.o.s. (bisphenol a)	Environmentally hazardous substance, solid, n.o.s. (bisphenol a). Marine pollutant (bisphenol a)	Environmentally hazardous substance, solid, n.o.s. (bisphenol a)
<b>14.3 Transport hazard class(es)</b>	9 	9 	9 	9 
<b>14.4 Packing group</b>	III	III	III	III
<b>14.5 Environmental hazards</b>	Yes.	Yes.	Yes.	Yes.

### Additional information

#### ADR/RID

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

**Hazard identification number** 90

**Tunnel code** (-)

#### ADN

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

#### IMDG

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

**Emergency schedules** F-A, S-F

#### IATA

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

#### 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

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**SECTION 15: Regulatory information**

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
Toxic to reproduction	bisphenol a 1h-imidazole, 2-methyl-	Candidate Candidate	- D(2020) 4578-DC	- 25.06.2020
Endocrine disrupting properties for human health	bisphenol a	Recommended	ED/01/2018	01.10.2019
Endocrine disrupting properties for environment	bisphenol a	Recommended	ED/01/2018	01.10.2019

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

**Other EU regulations**

**VOC** : Not available.

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

**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 may add to the calculation for determining whether a site is within the scope of the Seveso Directive on major accident hazards.

**National regulations**

**Industrial use** : The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

Product/ingredient name	List name	Name on list	Classification	Notes
4,4'-isopropylidenediphenol	Norway Occupational Exposure Limits	Bisfenol A inhalerbar	Repro. R	-
Quartz (SiO <sub>2</sub> )	Norway Occupational Exposure Limits	krystallinsk silika (SiO <sub>2</sub> ), α-kvarts totalstøv	Carc. K	-

**Norway**

**Product registration number** :  Under declaration

**International regulations**



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## SECTION 15: Regulatory information

### [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
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
Repr. 1B, H360FD	Calculation method
Aquatic Chronic 1, H410	Calculation method

### [Full text of abbreviated H statements](#)

✔H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H360D	May damage the unborn child.
H360F	May damage fertility.
H360FD	May damage fertility. May damage the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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

*Guard Shield A014***SECTION 16: Other information**

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
Carc. 2	CARCINOGENICITY - Category 2
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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