

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758

# SAFETY DATA SHEET

HJF22R Resicoat R4-ES

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

### 1.1 Product identifier

**Product name** : HJF22R Resicoat R4-ES  
**SDS code** : 8007799  
HJF22R/20KG

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

| Identified uses      |
|----------------------|
| Industrial use       |
| Uses advised against |
| All other uses       |

**Product use** : Electrostatic coating for use in industrial plants

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

Akzo Nobel Powder Coatings GmbH  
Site Reutlingen:  
Akzo Nobel Powder Coatings GmbH  
Markwiesenstr. 50  
72770 Reutlingen  
Germany  
T: +49 7121 519-0  
F: +49 7121 519-199  
www.resicoat.com

**e-mail address of person responsible for this SDS** : resicoat@akzonobel.com

### 1.4 Emergency telephone number

#### National advisory body/Poison Centre

**Telephone number** : +44 (0)344 892 0111

#### Supplier

**Telephone number** : Emergency CONTACT (24-Hour-Number): GBK GmbH +49 (0)6132-84463

**Hours of operation** :

## 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 Irrit. 2, H319  
Skin Sens. 1, H317  
Repr. 1B, H360FD

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

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1/18

**AkzoNobel**

SECTION 2: Hazards identification

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  |
| Hazard statements  | : | May cause an allergic skin reaction.<br>Causes serious eye irritation.<br>May damage fertility. May damage the unborn child.  |
| <b>Precautionary statements</b>  |   |   |
| Prevention   | : | Obtain special instructions before use. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Avoid breathing dust or mist.  |
| Response   | : | IF exposed or concerned: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention. |
| Storage  | : | Not applicable.   |
| Disposal   | : | Dispose of contents and container in accordance with all local, regional, national and international regulations.   |
| Hazardous ingredients  | : | Bisphenol A<br>2-methylimidazole  |
| Supplemental label elements  | : | Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.  |
| Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles | : |   |
| <b>Special packaging requirements</b>  |   |   |
| Containers to be fitted with child-resistant fastenings  | : | Not applicable.   |
| Tactile warning of danger  | : | Not applicable.   |

2.3 Other hazards

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

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<br>EC: 236-675-5<br>CAS: 13463-67-7 | ≤5 | Carc. 2, H351 (inhalation)  | -   | [1] [*]     |
| bisphenol A             | EC: 201-245-8<br>CAS: 80-05-7                                 | <3 | Eye Dam. 1, H318<br>Skin Sens. 1, H317<br>Repr. 1B, H360F<br>STOT SE 3, H335  | -   | [1] [2] [3] |
| 2-methylimidazole       | EC: 211-765-7<br>CAS: 693-98-1                                | <1 | Acute Tox. 4, H302<br>Skin Corr. 1C, H314<br>Eye Dam. 1, H318<br>Carc. 2, H351<br>Repr. 1B, H360Df<br><b>See Section 16 for the full text of the H statements declared above.</b> | ATE [Oral] = 500 mg/kg                    | [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.
- 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. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

SECTION 4: First aid measures

- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- 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

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact. Coating powders can cause localised skin irritation in folds of the skin or under tight clothing.

Contains 4,4'-isopropylidenediphenol. May produce an allergic reaction.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain or irritation  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations

4.3 Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Use dry chemical powder.
- Unsuitable extinguishing media : Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture : May form explosible dust-air mixture if dispersed.
- Hazardous combustion products : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
sulfur oxides  
halogenated compounds  
metal oxide/oxides

5.3 Advice for firefighters

- Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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 : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

SECTION 6: Accidental release measures

|                                 |   |
|---------------------------------|---|
| Large spill                     | : Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. |
| 6.4 Reference to other sections | : See Section 1 for emergency contact information.<br>See Section 8 for information on appropriate personal protective equipment.<br>See Section 13 for additional waste treatment information.   |

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

7.1 Precautions for safe handling

|  |   |
|--|---|
| Protective measures                    | : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. 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. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| 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 a segregated and approved area. 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. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. 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  |
|--|--|
|  titanium dioxide | <b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b><br>TWA: 4 mg/m³ 8 hours. Form: respirable       |
| bisphenol A  | <b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b><br>TWA: 10 mg/m³ 8 hours. Form: total inhalable |
|  | <b>EH40/2005 WELs (United Kingdom (UK), 1/2020).</b><br>TWA: 2 mg/m³ 8 hours. Form: inhalable dust   |

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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  |
|--|------|-----------------------|---------------------|--------------------|----------|
|  bisphenol A | DNEL | Short term Dermal     | 0.0019 mg/kg bw/day | General population | Systemic |
|  | DNEL | Long term Dermal      | 0.0019 mg/kg bw/day | General population | Systemic |
|  | DNEL | Short term Oral       | 0.004 mg/kg bw/day  | General population | Systemic |
|  | DNEL | Long term Oral        | 0.004 mg/kg bw/day  | General population | Systemic |
|  | DNEL | Short term Dermal     | 0.031 mg/kg bw/day  | Workers            | Systemic |
|  | DNEL | Long term Dermal      | 0.031 mg/kg bw/day  | Workers            | Systemic |
|  | DNEL | Short term Inhalation | 1 mg/m³             | General population | Local    |
|  | DNEL | Long term Inhalation  | 1 mg/m³             | General population | Local    |
|  | DNEL | Short term Inhalation | 1 mg/m³             | General population | Systemic |
|  | DNEL | Long term Inhalation  | 1 mg/m³             | General population | Systemic |
|  | DNEL | Short term Inhalation | 2 mg/m³             | Workers            | Local    |
|  | DNEL | Long term Inhalation  | 2 mg/m³             | Workers            | Local    |
|  | DNEL | Short term Inhalation | 2 mg/m³             | Workers            | Systemic |
|  | DNEL | Long term Inhalation  | 2 mg/m³             | Workers            | Systemic |
|  | DNEL | Long term Oral        | 0.02 mg/kg bw/day   | General population | Systemic |
| 2-methylimidazole  | DNEL | Long term Oral        | 0.02 mg/kg bw/day   | General population | Systemic |



| SECTION 8: Exposure controls/personal protection |      |                      |                   |         |          |
|--|------|----------------------|-------------------|---------|----------|
|  | DNEL | Long term Dermal     | 0.04 mg/kg bw/day | Workers | Systemic |
|  | DNEL | Long term Inhalation | 0.3 mg/m³         | Workers | Systemic |

**PNECs**

No PNECs available

**8.2 Exposure controls**

**Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**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 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: chemical splash goggles. If operating conditions cause high dust concentrations to be produced, use dust goggles.

**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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time >480 minutes according to EN374) is recommended. Recommended gloves: Viton ® or Nitrile, thickness ≥ 0.38 mm. When only brief contact is expected, a glove with protection class of 2 or higher (breakthrough time >30 minutes according to EN374) is recommended. Recommended gloves: Nitrile, thickness ≥ 0.12 mm.

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

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

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** : 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.

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.



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** : 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.
- 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** : Solid. [Powder.]
- Colour** : Blue.
- Odour** : Odourless.
- Odour threshold** : Not available.
- Melting point/freezing point** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit** : 20 - 70 g/m3
- Auto-ignition temperature** : 450 to 600°C (842 to 1112°F)
- Decomposition temperature** : Not available.
- pH** : Not applicable. [DIN EN 1262]
- Viscosity** : Kinematic (room temperature): Not applicable. [DIN EN ISO 3219]  
Kinematic (40°C): Not applicable. [DIN EN ISO 3219]
- Solubility(ies)** :

| Media      | Result                      |
|------------|-----------------------------|
| cold water | Not soluble [OESO (TG 105)] |

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

- Vapour pressure** : Not available.
- Relative density** : 1.2 to 1.9 [ISO 8130-2/-3]
- Vapour density** : Not applicable.

Particle characteristics

- Median particle size** : Not available.
- Percentage of particles with aerodynamic diameter ≤ 10 µm** : 

9.2 Other information

**Minimum ignition energy (mJ)** : 5 to 20

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 : 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 : Reactive or incompatible with the following materials:  
oxidising materials
- 10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity

| Product/ingredient name | Result               | Species    | Dose       | Exposure |
|-------------------------|----------------------|------------|------------|----------|
| Bisphenol A             | LD50 Dermal          | Rabbit     | 3 mL/kg    | -        |
|                         | LD50 Intraperitoneal | Mouse      | 150 mg/kg  | -        |
|                         | LD50 Intraperitoneal | Rat        | 200 mg/kg  | -        |
|                         | LD50 Oral            | Guinea pig | 4 g/kg     | -        |
|                         | LD50 Oral            | Guinea pig | 4000 mg/kg | -        |
|                         | LD50 Oral            | Mouse      | 2400 mg/kg | -        |
|                         | LD50 Oral            | Mouse      | 2400 mg/kg | -        |
|                         | LD50 Oral            | Mouse      | 2500 mg/kg | -        |
|                         | LD50 Oral            | Mouse      | 2500 mg/kg | -        |
|                         | LD50 Oral            | Rabbit     | 2230 mg/kg | -        |
|                         | LD50 Oral            | Rat        | 1200 mg/kg | -        |
|                         | LD50 Oral            | Rat        | 4240 mg/kg | -        |
|                         | LD50 Oral            | Rat        | 3250 mg/kg | -        |
|                         | LD50 Subcutaneous    | Rabbit     | 3000 mg/kg | -        |
|                         | LD50 Intraperitoneal | Mouse      | 480 mg/kg  | -        |
| 2-methylimidazole       | LD50 Oral            | Mouse      | 1400 mg/kg | -        |

Conclusion/Summary : 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) |
|-------------------------|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| 2-methylimidazole       | 500          | N/A            | N/A                      | N/A                         | N/A                                 |

Irritation/Corrosion

SECTION 11: Toxicological information

| Product/ingredient name | Result                 | Species | Score | Exposure        | Observation |
|-------------------------|------------------------|---------|-------|-----------------|-------------|
| Bisphenol A             | Eyes - Severe irritant | Rabbit  | -     | 24 hours 250 ug | -           |
|                         | Skin - Mild irritant   | Rabbit  | -     | 250 mg          | -           |
|                         | Skin - Mild irritant   | Rabbit  | -     | 24 hours 500 mg | -           |

Conclusion/Summary : Not available.

Sensitisation

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

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)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure : Not available.

Potential acute health effects

- Eye contact : Causes serious eye irritation.
- Inhalation : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
- Skin contact : May cause an allergic skin reaction.
- Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact : Adverse symptoms may include the following:
  - pain or irritation
  - watering
  - redness
- Inhalation : Adverse symptoms may include the following:
  - respiratory tract irritation
  - coughing
  - reduced foetal weight
  - increase in foetal deaths
  - skeletal malformations

SECTION 11: Toxicological information

- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
reduced foetal weight  
increase in foetal deaths  
skeletal malformations

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

**Short term exposure**


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

**Long term exposure**

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

**Potential chronic health effects**

Not available.

- Conclusion/Summary** : Not available.
- General** : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** :  May damage fertility. May damage the unborn child.

**11.2 Information on other hazards**

**11.2.1 Endocrine disrupting properties**

Not available.

**11.2.2 Other information**

No additional information.

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 not classified as hazardous to the environment.

## SECTION 12: Ecological information

| Product/ingredient name | Result                                | Species   | Exposure |
|-------------------------|---------------------------------------|---|----------|
| Titanium dioxide        | Acute EC50 19.3 mg/l Fresh water      | Daphnia - Daphnia magna   | 48 hours |
|                         | Acute EC50 27.8 mg/l Fresh water      | Daphnia - Daphnia magna   | 48 hours |
|                         | Acute EC50 35.306 mg/l Fresh water    | Daphnia - Daphnia magna - Neonate                                   | 48 hours |
|                         | Acute LC50 3 mg/l Fresh water         | Crustaceans - Ceriodaphnia dubia - Neonate                          | 48 hours |
|                         | Acute LC50 13.4 mg/l Fresh water      | Crustaceans - Ceriodaphnia dubia - Neonate                          | 48 hours |
|                         | Acute LC50 11 mg/l Fresh water        | Crustaceans - Ceriodaphnia dubia - Neonate                          | 48 hours |
|                         | Acute LC50 3.6 mg/l Fresh water       | Crustaceans - Ceriodaphnia dubia - Neonate                          | 48 hours |
|                         | Acute LC50 15.9 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 13 mg/l Fresh water        | Daphnia - Daphnia pulex - Neonate                                   | 48 hours |
|                         | Acute LC50 >1000000 µg/l Marine water | Fish - Fundulus heteroclitus  | 96 hours |
|                         | Acute LC50 >1000 mg/l Fresh water     | Fish - Pimephales promelas  | 96 hours |
| bisphenol A             | Acute EC50 1.506 mg/l Marine water    | Algae - Prorocentrum minimum - Exponential growth phase             | 72 hours |
|                         | Acute EC50 1.51 mg/l Marine water     | Algae - Prorocentrum minimum - Exponential growth phase             | 72 hours |
|                         | Acute EC50 2700 µg/l Fresh water      | Algae - Pseudokirchneriella subcapitata                             | 96 hours |
|                         | Acute EC50 1000 µg/l Marine water     | Algae - Skeletonema costatum  | 96 hours |
|                         | Acute EC50 1800 µg/l Marine water     | Algae - Skeletonema costatum  | 96 hours |
|                         | Acute EC50 7.75 mg/l Fresh water      | Daphnia - Daphnia magna - Neonate                                   | 48 hours |
|                         | Acute EC50 20.5 mg/l Fresh water      | Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling) | 48 hours |
|                         | Acute EC50 10200 µg/l Fresh water     | Daphnia - Daphnia magna   | 48 hours |
|                         | Acute EC50 9940 µg/l Fresh water      | Daphnia - Daphnia magna - Young                                     | 48 hours |
|                         | Acute EC50 5.246 mg/l Fresh water     | Fish - Danio rerio - Embryo   | 96 hours |
|                         | Acute LC50 3.881 mg/l Marine water    | Crustaceans - Acartia tonsa - Copepodid                             | 48 hours |
|                         | Acute LC50 4.04371 mg/l Marine water  | Crustaceans - Acartia tonsa - Copepodid                             | 48 hours |
|                         | Acute LC50 1.34 mg/l Marine water     | Crustaceans - Americamysis bahia - Larvae                           | 48 hours |
|                         | Acute LC50 1600 µg/l Marine water     | Crustaceans - Americamysis bahia                                    | 48 hours |
|                         | Acute LC50 50.4 µg/l Marine water     | Crustaceans - Artemia sinica  | 48 hours |
|                         | Acute LC50 12.8 mg/l Fresh water      | Daphnia - Daphnia magna   | 48 hours |
|                         | Acute LC50 4.2 mg/l Fresh water       | Fish - Pimephales promelas - Larvae                                 | 96 hours |
|                         | Acute LC50 4700 µg/l Fresh water      | Fish - Pimephales promelas  | 96 hours |
|                         | Acute LC50 4600 µg/l Fresh water      | Fish - Pimephales promelas  | 96 hours |
|                         | Acute LC50 3.5 mg/l Marine water      | Fish - Rivulus marmoratus - Embryo                                  | 96 hours |
|                         | Chronic NOEC 5 mg/l Fresh water       | Algae - Chlorella pyrenoidosa                                       | 72 hours |
|                         | Chronic NOEC 4 mg/l Fresh water       | Algae - Chlorolobion braunii - Exponential growth phase             | 4 days   |
|                         | Chronic NOEC 4 mg/l Fresh water       | Algae - Chlorolobion braunii - Exponential growth phase             | 4 days   |

SECTION 12: Ecological information

|                   |                                    |   |          |
|-------------------|------------------------------------|---|----------|
| 2-methylimidazole | Chronic NOEC 2 mg/l Fresh water    | Algae - Chlorolobion braunii - Exponential growth phase                     | 4 days   |
|                   | Chronic NOEC 0.1 mg/l Fresh water  | Crustaceans - Asellus aquaticus - Juvenile (Fledgling, Hatchling, Weanling) | 21 days  |
|                   | Chronic NOEC 0.05 mg/l Fresh water | Crustaceans - Asellus aquaticus - Juvenile (Fledgling, Hatchling, Weanling) | 21 days  |
|                   | Chronic NOEC 10 µg/l Marine water  | Crustaceans - Tigriopus japonicus - Nauplii                                 | 21 days  |
|                   | Chronic NOEC 10 µg/l Marine water  | Crustaceans - Tigriopus japonicus - Nauplii                                 | 21 days  |
|                   | Chronic NOEC 10 µg/l Marine water  | Crustaceans - Tigriopus japonicus - Nauplii                                 | 21 days  |
|                   | Chronic NOEC 0.8 mg/l Fresh water  | Daphnia - Daphnia magna - Neonate   | 21 days  |
|                   | Chronic NOEC 1 mg/l Fresh water    | Daphnia - Daphnia magna - Neonate   | 21 days  |
|                   | Chronic NOEC 0.86 mg/l Fresh water | Daphnia - Daphnia magna - Neonate   | 21 days  |
|                   | Chronic NOEC 0.86 mg/l Fresh water | Daphnia - Daphnia magna - Neonate   | 21 days  |
|                   | Chronic NOEC 30 µg/l Fresh water   | Daphnia - Daphnia magna - Neonate   | 21 days  |
|                   | Chronic NOEC 0.2 µg/l Fresh water  | Fish - Carassius auratus - Adult  | 30 days  |
|                   | Chronic NOEC 0.2 µg/l Fresh water  | Fish - Carassius auratus - Adult  | 60 days  |
|                   | Chronic NOEC 0.2 µg/l Fresh water  | Fish - Carassius auratus - Adult  | 90 days  |
|                   | Chronic NOEC 6 µg/l Fresh water    | Fish - Carassius auratus - Adult  | 90 days  |
|                   | Acute LC50 286000 µg/l Fresh water | Fish - Oryzias latipes - Embryo   | 44 days  |
|                   |                                    | Fish - Pimephales promelas  | 96 hours |

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

| Product/ingredient name | LogP <sub>ow</sub> | BCF      | Potential |
|-------------------------|--------------------|----------|-----------|
| Bisphenol A             | 3.4                | 20 to 67 | low       |
| 2-methylimidazole       | 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.

12.6 Endocrine disrupting properties

Not available.

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** : The classification of the product may meet the criteria for a hazardous waste.
- 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     |
|--------------|-----------------------|
| EWC 08 02 01 | waste coating powders |

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.
- 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

|                                 | ADR/RID        | IMDG           | IATA           |
|---------------------------------|----------------|----------------|----------------|
| 14.1 UN number or ID number     | Not regulated. | Not regulated. | Not regulated. |
| 14.2 UN proper shipping name    | -              | -              | -              |
| 14.3 Transport hazard class(es) | -              | -              | -              |
| 14.4 Packing group              | -              | -              | -              |
| 14.5 Environmental hazards      | No.            | No.            | No.            |

SECTION 14: Transport information

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 applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  
UK (GB) /REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

| Intrinsic property                               | Ingredient name                  | Status                   | Reference number                 | Date of revision       |
|--|----------------------------------|--------------------------|----------------------------------|------------------------|
| Toxic to reproduction                            | bisphenol A<br>2-methylimidazole | Recommended<br>Candidate | ED/01/2018<br>D(2020)<br>4578-DC | 10/1/2019<br>6/25/2020 |
| Endocrine disrupting properties for human health | bisphenol A                      | Recommended              | ED/01/2018                       | 10/1/2019              |
| Endocrine disrupting properties for environment  | bisphenol A                      | Recommended              | ED/01/2018                       | 10/1/2019              |

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 applicable.

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

SECTION 15: Regulatory information

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

Biocidal products regulation

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 : No Chemical Safety Assessment has been carried out.

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 Irrit. 2, H319<br>Skin Sens. 1, H317<br>Repr. 1B, H360FD | Calculation method<br>Calculation method<br>Calculation method |

Full text of abbreviated H statements

|   |  |
|---|--|
| H302<br>H314<br>H317<br>H318<br>H319<br>H335<br>H351<br>H360Df<br>H360F | Harmful if swallowed.<br>Causes severe skin burns and eye damage.<br>May cause an allergic skin reaction.<br>Causes serious eye damage.<br>Causes serious eye irritation.<br>May cause respiratory irritation.<br>Suspected of causing cancer.<br>May damage the unborn child. Suspected of damaging fertility.<br>May damage fertility. |
|---|--|

SECTION 16: Other information

|        |  |
|--------|--|
| H360FD | May damage fertility. May damage the unborn child. |
|--------|--|

Full text of classifications [CLP/GHS]

|   |   |
|---|---|
| Acute Tox. 4<br>Carc. 2<br>Eye Dam. 1<br>Eye Irrit. 2<br>Repr. 1B<br>Skin Corr. 1C<br>Skin Sens. 1<br>STOT SE 3 | ACUTE TOXICITY - Category 4<br>CARCINOGENICITY - Category 2<br>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1<br>SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2<br>REPRODUCTIVE TOXICITY - Category 1B<br>SKIN CORROSION/IRRITATION - Category 1C<br>SKIN SENSITISATION - Category 1<br>SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3 |
|---|---|

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Notice to reader

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IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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