

Safety Data Sheet

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

1.1 Product identifier

Product name : HGF03R-K20 RESICOAT R4-ES
Product code : 8007796
Other means of identification : HGF03R/20KG

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

Identified uses

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

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]

Repr. 2, H361f (Fertility)
Aquatic Chronic 3, H412

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

Classification according to Directive 1999/45/EC [DPD]

The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Not classified.

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

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

2.2 Label elements

Hazard pictograms :



Signal word :

Warning

Hazard statements :

Suspected of damaging fertility.
Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention :

Obtain special instructions before use. Use personal protective equipment as required. Avoid release to the environment.

Response :

IF exposed or concerned: Get medical attention.

Storage :

Store locked up.

Disposal :

Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients :

bisphenol A

Supplemental label elements :

Not applicable.

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

Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings :

Not applicable.

Tactile warning of danger :

Not applicable.

2.3 Other hazards

Other hazards which do not result in classification :

Fine dust clouds may form explosive mixtures with air. Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

SECTION 3: Composition/information on ingredients

3.2 Mixtures :

Mixture

| Product/ingredient name | Identifiers | % | Classification | | Type |
|-------------------------|---|--------------|--|--|---------|
| | | | 67/548/EEC | Regulation (EC) No. 1272/2008 [CLP] | |
| bisphenol A | EC: 201-245-8 CAS: 80-05-7 Index: 604-030-00-0 | >=1 - <5 | Repr. Cat. 3; R62 Xi; R37 R52 | Eye Irrit. 2, H319 Repr. 2, H361f (Fertility) STOT SE 3, H335 (Respiratory tract irritation) Aquatic Chronic 2, H411 | [1] [2] |
| 2-methylimidazole | EC: 211-765-7 CAS: 693-98-1 | >=0.1 - <0.5 | Carc. Cat. 3; R40 Repr. Cat. 2; R61 Xn; R22 C; R34 Xi; R41 See Section 16 for the full text of the R-phrases declared above. | Acute Tox. 4, H302 Skin Corr. 1C, H314 Eye Dam. 1, H318 Carc. 2, H351 Repr. 1B, H360FD (Fertility and Unborn child) (dermal) See Section 16 for the full text of the H statements declared above. | [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 or vPvBs 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 meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern

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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

| | | | |
|---|--|--------------------|------|
| Date of issue/Date of revision : 18/5/2015 | Date of previous issue : 25/6/2014. | Version : 3 | 3/14 |
|---|--|--------------------|------|

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards 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.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

See toxicological information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Recommended: alcohol-resistant foam, CO₂ blanket, water spray or mist.

Unsuitable extinguishing media : Do not use water jet.
Do not use inert gas under high pressure (e.g. CO₂).

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

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.
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.

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.

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 or exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits



| Product/ingredient name | Exposure limit values |
|-------------------------|---|
| barium sulfate | EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m ³ 8 hours. Form: inhalable dust TWA: 4 mg/m ³ 8 hours. Form: respirable dust |
| Mica-group minerals | EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m ³ 8 hours. Form: Inhalable fraction TWA: 0.8 mg/m ³ 8 hours. Form: Respirable fraction |
| diiron trioxide | EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m ³ 8 hours. Form: inhalable dust TWA: 4 mg/m ³ 8 hours. Form: respirable dust |
| bisphenol A | EU OEL (Europe, 12/2009). TWA: 10 mg/m ³ 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

No DNELs/DMELs available.

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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear should be used when there is a likelihood of exposure.

Skin protection

Hand protection

Gloves : For prolonged or repeated handling, use the following type of gloves:
Vinyl gloves. (EN 374).
Nitrile gloves. (EN374).
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

- 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.
- 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 appropriate, certified respirators.
- Dry sanding, flame cutting and/or welding of the dry paint film will give rise to dust and/or hazardous fumes. Wet sanding/flatting should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.
- Environmental exposure controls** : Do not allow to enter drains or watercourses.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Solid. [Powder.]
- Colour** : Various
- Odour** : Odourless.
- pH** : Not applicable.
- Flash point** : Closed cup: Not applicable.
- Upper/lower flammability or explosive limits** : 20 - 70 g/m³
- Vapour density** : Not available.
- Relative density** : 1.2 to 1.9 [ISO 8130-2/-3]
- Solubility(ies)** : Insoluble in the following materials: cold water and hot water.
- Auto-ignition temperature** : 450 to 600°C
- Minimum ignition energy (mJ)** : 5 to 20

9.2 Other information

In operations where the powder is recovered for reuse, the average particle size may change and this in turn can lead to an alteration in MIE.

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** : 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** : When exposed to high temperatures may produce hazardous decomposition products.

10.5 Incompatible materials : Not applicable.

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 toxicological effects

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards 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.

May produce an allergic reaction. Tests carried out by the raw material supplier regarding this/these raw material(s) have not shown irritation to eyes or skin and no sensitisation by skin contact.

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|---------------------------------|--------------------|--------------------------------------|----------|
| bisphenol A | LC50 Inhalation Dusts and mists | Rat | >0.17 mg/l ***TO BE TRANSLATED*** | 6 hours |
| 2-methylimidazole | LD50 Dermal | Rabbit | 3600 mg/kg | - |
| | LD50 Oral | Rat | 3700 mg/kg | - |
| | LD50 Dermal | Rat - Male, Female | >2000 mg/kg | - |
| | LD50 Oral | Rat - Male, Female | 1500 mg/kg | - |

Conclusion/Summary : Not available.

Acute toxicity estimates

Not available.

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|-------------------------|---------|-------|-------------------------|-------------|
| bisphenol A | Eyes - Severe irritant | Rabbit | - | 24 hours 250 Micrograms | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 250 milligrams | - |
| 2-methylimidazole | Skin - Visible necrosis | Rabbit | - | 4 hours | 8 days |
| | Eyes - Visible necrosis | Rabbit | - | 1 hours | 1 hours |

Conclusion/Summary : Not available.

Sensitisation

| Product/ingredient name | Route of exposure | Species | Result |
|-------------------------|-------------------|---------|-----------------|
| 2-methylimidazole | skin | Mouse | Not sensitizing |

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 | Not applicable. | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

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 conventional method of the Dangerous Preparations Directive 1999/45/EC and is not classified as dangerous for the environment but contains a substance or substances dangerous for the environment. See section 3 for details.

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|--------------------------------------|-----------------------------------|----------|
| bisphenol A | Acute EC50 1.1 mg/l Marine water | Algae - Skeletonema costatum | 96 hours |
| | Acute EC50 10.2 mg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 4.6 mg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Chronic EC10 0.4 mg/l Marine water | Algae - Skeletonema costatum | 96 hours |
| | Chronic NOEC 0.025 mg/l Marine water | Crustaceans - Marisa cornuarietis | 328 days |
| | Chronic NOEC 1 mg/l Fresh water | Daphnia - Daphnia magna | 21 days |
| 2-methylimidazole | Acute EC50 256 mg/l Fresh water | Algae - Desmodesmus subspicatus | 72 hours |
| | Acute LC50 225 mg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 190 mg/l Fresh water | Fish - Leuciscus idus | 96 hours |
| | Chronic EC10 110 mg/l Fresh water | Algae - Desmodesmus subspicatus | 72 hours |

Conclusion/Summary : Not available.

12.2 Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|-------------------------|------|--------------------------|------|----------|
| bisphenol A | - | 75 % - Readily - 28 days | - | - |
| 2-methylimidazole | - | 67 % - 28 days | - | - |

Conclusion/Summary : Not available.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| bisphenol A | - | - | Readily |
| 2-methylimidazole | - | - | Readily |

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| bisphenol A | 3.32 | - | low |
| 2-methylimidazole | 0.22 | - | low |

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 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).

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.

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.

European waste catalogue (EWC) : The European Waste Catalogue classification of this product, when disposed of as waste, is: 08 01 11

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 Paint Guidelines | 15 01 10* | packaging containing residues of or contaminated by dangerous 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

| | ADR/RID | IMDG | IATA |
|--|----------------|----------------|----------------|
| 14.1 UN number | Not regulated. | Not regulated. | Not regulated. |
| 14.2 UN proper shipping name | Not regulated. | Not regulated. | Not regulated. |
| 14.3 Transport hazard class(es) | Not regulated. | Not regulated. | Not regulated. |
| 14.4 Packing group | - | - | - |
| 14.5 Environmental hazards | No. | No. | No. |
| Additional 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 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

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

Other EU regulations

VOC : Not applicable.
VOC for Ready-for-Use Mixture : Not applicable.
Europe inventory : Not determined.
Priority List Chemicals (793/93/EEC) : Listed

| Product/ingredient name | Carcinogenic effects | Mutagenic effects | Developmental effects | Fertility effects |
|-------------------------|----------------------|-------------------|---|--------------------------------------|
| bisphenol A | - | - | - | Repr. 2, H361f (Fertility) |
| 2-methylimidazole | Carc. 2, H351 | - | Repr. 1B, H360D (Unborn child) (dermal) | Repr. 1B, H360F (Fertility) (dermal) |

Seveso II Directive

This product is not controlled under the Seveso II Directive.

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.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

International lists

National inventory

Australia : All components are listed or exempted.
Canada : All components are listed or exempted.
China : All components are listed or exempted.
Japan : Not determined.
Malaysia : Not determined.
New Zealand : Not determined.

Philippines : All components are listed or exempted.
Republic of Korea : All components are listed or exempted.
Taiwan : Not determined.
United States : Not determined.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

CEPE code : 3

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
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 vPvB = Very Persistent and Very Bioaccumulative

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

| Classification | Justification |
|--|--|
| Repr. 2, H361f (Fertility) Aquatic Chronic 3, H412 | Calculation method Calculation method |
| Full text of abbreviated H statements : | |
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H335 (Respiratory tract irritation) | May cause respiratory irritation. (Respiratory tract irritation) |
| H351 | Suspected of causing cancer. |
| H360FD (Fertility and Unborn child) | May damage fertility in contact with skin. May damage the unborn child in contact with skin. |
| H361f (Fertility) | Suspected of damaging fertility. |
| H411 | Toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| Full text of classifications [CLP/GHS] : | |
| Acute Tox. 4, H302 | ACUTE TOXICITY (oral) - Category 4 |
| Aquatic Chronic 2, H411 | LONG-TERM AQUATIC HAZARD - Category 2 |
| Aquatic Chronic 3, H412 | LONG-TERM AQUATIC HAZARD - Category 3 |
| Carc. 2, H351 | CARCINOGENICITY - Category 2 |
| Eye Dam. 1, H318 | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 |
| Eye Irrit. 2, H319 | SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 |
| Repr. 1B, H360FD (Fertility and Unborn child) (dermal) | TOXIC TO REPRODUCTION (Fertility and Unborn child) (dermal) - Category 1B |
| Repr. 2, H361f (Fertility) | TOXIC TO REPRODUCTION (Fertility) - Category 2 |
| Skin Corr. 1C, H314 | SKIN CORROSION/IRRITATION - Category 1C |
| STOT SE 3, H335 (Respiratory tract irritation) | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 |

Full text of abbreviated R phrases : R40- Limited evidence of a carcinogenic effect.
R61- May cause harm to the unborn child.
R62- Possible risk of impaired fertility.
R22- Also harmful if swallowed.
R34- Causes burns.
R41- Risk of serious damage to eyes.
R37- Irritating to respiratory system.
R52- Harmful to aquatic organisms.

Full text of classifications [DSD/DPD] : Carc. Cat. 3 - Carcinogen category 3
Repr. Cat. 2 - Toxic to reproduction category 2
Repr. Cat. 3 - Toxic to reproduction category 3
C - Corrosive
Xn - Harmful
Xi - Irritant

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Version : 3

Notice to reader

The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. 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.