Interpon®

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

SAFETY DATA SHEET

E3510I INT 700 MR INOX744 FA 20KG

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

1.1 Product identifier

Product name : E3510I INT 700 MR INOX744 FA 20KG

SDS code : 8020739
E3510I/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

AkzoNobel Powder Coatings Limited
Stoneygate Lane,
Felling,
Gateshead.
NE10 0JY
United Kingdom

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

National contact

01 8092566 or 01 8379964

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : +44 (0)344 892 0111

Supplier

Telephone number : +44 0191 469 6111

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]

Aquatic Chronic 3, H412

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

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

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

SECTION 2: Hazards identification

2.2 Label elements

Signal word : No signal word.

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

Precautionary statements

Prevention : Avoid release to the environment.

Response : Not applicable.

Storage : Not applicable.

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

Hazardous ingredients : benzene-1,2,4-tricarboxylic acid 1,2-anhydride

Supplemental label elements : Contains benzene-1,2,4-tricarboxylic acid 1,2-anhydride. May produce an allergic reaction.

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

Special packaging requirements

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

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : 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
copper	EC: 231-159-6 CAS: 7440-50-8	≥1 - ≤3	Acute Tox. 4, H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg M [Acute] = 10 M [Chronic] = 1	[1]
Zinc powder - zinc dust (stabilized)	EC: 231-175-3 CAS: 7440-66-6 Index: 030-001-01-9	≤1	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M [Acute] = 1 M [Chronic] = 1	[1]
copper	EC: 231-159-6 CAS: 7440-50-8	≤1	Acute Tox. 4, H302 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	ATE [Oral] = 500 mg/kg M [Acute] = 10	[1]
benzene-1,2,4-tricarboxylic	EC: 209-008-0	≤1	Eye Dam. 1, H318	-	[1] [2]

SECTION 3: Composition/information on ingredients

acid 1,2-anhydride	CAS: 552-30-7 Index: 607-097-00-4		Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335		
3,9-bis(2,4-di-tert-butylphenoxy) -2,4,8,10-tetraoxa-3,9-diphosphaspiro[5.5] undecane	EC: 247-952-5 CAS: 26741-53-7	≤0.3	Aquatic Chronic 1, H410	M [Chronic] = 1	[1]
2-ethyl-N,N-bis (2-ethylhexyl)hexylamine	EC: 217-461-0 CAS: 1860-26-0	≤0.3	Repr. 2, H361 STOT RE 2, H373 **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, 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 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

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 if irritation occurs.

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 adverse health effects persist or are severe. 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 : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

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 if adverse health effects persist or are severe. 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. 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

SECTION 4: First aid measures

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 benzene-1,2,4-tricarboxylic acid 1,2-anhydride. May produce an allergic reaction.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
irritation
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : No specific data.

Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

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

Specific treatments : No specific treatment.

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. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
phosphorus 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). Water polluting material. May be harmful to the environment if released in large quantities.

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. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

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. Vacuum or sweep up material and place in a designated, labelled 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.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid release to the environment. 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

SECTION 7: Handling and storage

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. 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
copper	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Notes: as Cu** TWA: 0.2 mg/m³, (as Cu) 8 hours. Form: Fume
copper	**EH40/2005 WELs (United Kingdom (UK), 1/2020).** TWA: 0.2 mg/m³, (as Cu) 8 hours. Form: Fume
benzene-1,2,4-tricarboxylic acid 1,2-anhydride	**EH40/2005 WELs (United Kingdom (UK), 1/2020). Inhalation sensitiser.** STEL: 0.12 mg/m³ 15 minutes. TWA: 0.04 mg/m³ 8 hours.

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
copper	DNEL	Long term Oral	0.041 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	1 mg/m³	General population	Local
	DNEL	Long term Inhalation	1 mg/m³	General population	Local
	DNEL	Long term Dermal	137 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	137 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	273 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	273 mg/kg	Workers	Systemic

SECTION 8: Exposure controls/personal protection

			bw/day		
Zinc powder - zinc dust (stabilized)	DNEL	Long term Oral	0.83 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	2.5 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	5 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	83 mg/kg bw/day	Workers	Systemic
copper	DNEL	Long term Oral	0.041 mg/ kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	1 mg/m³	General population	Local
	DNEL	Long term Inhalation	1 mg/m³	General population	Local
	DNEL	Long term Dermal	137 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	137 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Dermal	273 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	273 mg/kg bw/day	Workers	Systemic
benzene-1,2,4-tricarboxylic acid 1,2-anhydride	DNEL	Long term Oral	2.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	4.4 mg/m³	General population	Systemic
	DNEL	Short term Oral	5 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	5 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	8.8 mg/m³	General population	Systemic
	DNEL	Short term Dermal	10 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	17.5 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	35 mg/m³	Workers	Systemic
3,9-bis(2,4-di-tert-butylphenoxy) -2,4,8,10-tetraoxa-3,9-diphosphaspiro[5.5]undecane	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/m³	General population	Systemic
	DNEL	Long term Dermal	0.78 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2.75 mg/m³	Workers	Systemic
2-ethyl-N,N-bis(2-ethylhexyl) hexylamine	DNEL	Long term Oral	0.03 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.06 mg/m³	General population	Systemic

SECTION 8: Exposure controls/personal protection

	DNEL	Long term Dermal	0.07 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.13 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.23 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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. 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.

SECTION 8: Exposure controls/personal 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 : 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 : Metallic.

Odour : Odourless.

Odour threshold : Not available.

Melting point/freezing point : Not available.

Initial boiling point and boiling range : Not available.

Flammability : Not available.

Lower and upper explosion limit : 20 - 70 g/m3

Flash point : Closed cup: Not applicable. [Pensky-Martens]

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.

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 toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
copper	LD50 Intraperitoneal	Mouse	0.07 mg/kg	-
	LD50 Oral	Mouse	>5000 mg/kg	-
	LD50 Oral	Mouse	413 mg/kg	-
copper	LD50 Intraperitoneal	Mouse	0.07 mg/kg	-
	LD50 Oral	Mouse	>5000 mg/kg	-
	LD50 Oral	Mouse	413 mg/kg	-
benzene-1,2,4-tricarboxylic acid 1,2-anhydride	LD50 Oral	Mouse	1900 mg/kg	-
	LD50 Oral	Rabbit	5600 mg/kg	-
3,9-bis(2,4-di-tert-butylphenoxy) -2,4,8,10-tetraoxa-3,9-diphosphaspiro[5.5] undecane	LD50 Oral	Rat	5580 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)
P5/E3510I/EU /20 Interpon MR AF bond	32320.6	N/A	N/A	N/A	N/A
copper	500	N/A	N/A	N/A	N/A
copper	500	N/A	N/A	N/A	N/A

Irritation/Corrosion

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
3,9-bis(2,4-di-tert-butylphenoxy) -2,4,8,10-tetraoxa-3,9-diphosphaspiro[5.5] undecane	Skin - Severe irritant	Rabbit	-	0.5 gm	-

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
benzene-1,2,4-tricarboxylic acid 1,2-anhydride	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-ethyl-N,N-bis(2-ethylhexyl)hexylamine	Category 2	-	-

Aspiration hazard

Not available.

Information on likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

Inhalation : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
irritation
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact : No specific data.

Ingestion : No specific data.

SECTION 11: Toxicological information

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.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

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
copper	Acute EC50 18 µg/l Marine water	Algae - Nitzschia closterium - Exponential growth phase	72 hours
	Acute EC50 18 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 1100 µg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute EC50 1.6 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute EC50 1.6 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute EC50 1.6 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute EC50 1 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute EC50 3.2 µg/l Fresh water	Daphnia - Daphnia galeata - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute EC50 3.1 µg/l Fresh water	Daphnia - Daphnia longispina - Juvenile (Fledgling, Hatchling,	48 hours

SECTION 12: Ecological information

		Weanling)	
	Acute EC50 2.1 µg/l Fresh water	Daphnia - Daphnia longispina - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute EC50 2.5 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 0.072 µg/l Marine water	Crustaceans - Amphipoda - Adult	48 hours
	Acute LC50 3.1 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 16 µg/l Fresh water	Fish - Osteichthyes - Adult	96 hours
	Acute LC50 8.7 µg/l Fresh water	Fish - Osteichthyes - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 7.56 µg/l Marine water	Fish - Periophthalmus waltoni - Adult	96 hours
	Acute LC50 10.3 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 9.4 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 3 µg/l Marine water	Algae - Nitzschia closterium - Exponential growth phase	72 hours
	Chronic NOEC 2.5 µg/l Marine water	Algae - Nitzschia closterium - Exponential growth phase	72 hours
	Chronic NOEC 3.2 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Chronic NOEC 0.013 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 7 mg/l Fresh water	Aquatic plants - Ceratophyllum demersum	3 days
	Chronic NOEC 0.02 mg/l Fresh water	Crustaceans - Cambarus bartonii - Mature	21 days
	Chronic NOEC 29.4 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	21 days
	Chronic NOEC 2 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 15 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 5 µg/l Fresh water	Daphnia - Daphnia pulex - Neonate	21 days
	Chronic NOEC 5 µg/l Fresh water	Daphnia - Daphnia pulex - Neonate	21 days
	Chronic NOEC 1.7 µg/l Fresh water	Fish - Cyprinus carpio	4 weeks
	Chronic NOEC 0.8 µg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	6 weeks
	Chronic NOEC 0.8 µg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	6 weeks
	Chronic NOEC 1.2 µg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	6 weeks
	Chronic NOEC 0.8 µg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	6 weeks
Zinc powder - zinc dust (stabilized)	Acute EC50 0.005 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 0.0092 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours

SECTION 12: Ecological information

	Acute EC50 106 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute EC50 246 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute EC50 10000 µg/l Fresh water	Aquatic plants - Lemna minor	4 days
	Acute EC50 70 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute EC50 356 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 354 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 175 µg/l Fresh water	Fish - Pimephales promelas - Larvae	96 hours
	Acute LC50 70 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 65 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 76 µg/l Fresh water	Crustaceans - Ceriodaphnia reticulata	48 hours
	Acute LC50 96 µg/l Fresh water	Crustaceans - Ceriodaphnia reticulata	48 hours
	Acute LC50 100 ppb Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 68 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 107 µg/l Fresh water	Daphnia - Daphnia pulex	48 hours
	Acute LC50 0.24 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 182 µg/l Fresh water	Fish - Oncorhynchus tshawytscha	96 hours
	Acute LC50 12.21 µg/l Marine water	Fish - Periophthalmus waltoni - Adult	96 hours
	Acute LC50 238 µg/l Fresh water	Fish - Pimephales promelas - Newly or recently hatched	96 hours
	Chronic NOEC 105 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Chronic NOEC 72.9 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Chronic NOEC 91 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Chronic NOEC 9 mg/l Fresh water	Aquatic plants - Ceratophyllum demersum	3 days
	Chronic NOEC 9 mg/l Fresh water	Aquatic plants - Ceratophyllum demersum	3 days
	Chronic NOEC 178 µg/l Marine water	Crustaceans - Palaemon elegans	21 days
	Chronic NOEC 62.6 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 94.5 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 72.7 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 172 µg/l Fresh water	Fish - Cottus bairdi	30 days
	Chronic NOEC 8.3 µg/l Fresh water	Fish - Cyprinus carpio	4 weeks
	Chronic NOEC 2.6 µg/l Fresh water	Fish - Cyprinus carpio	4 weeks
	Chronic NOEC 199 µg/l Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	30 days
copper	Acute EC50 18 µg/l Marine water	Algae - Nitzschia closterium - Exponential growth phase	72 hours
	Acute EC50 18 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 1100 µg/l Fresh water	Aquatic plants - Lemna minor	4 days

SECTION 12: Ecological information

	Acute EC50 1.6 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute EC50 1.6 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute EC50 1.6 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute EC50 1 µg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute EC50 3.2 µg/l Fresh water	Daphnia - Daphnia galeata - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute EC50 3.1 µg/l Fresh water	Daphnia - Daphnia longispina - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute EC50 2.1 µg/l Fresh water	Daphnia - Daphnia longispina - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute EC50 2.5 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	48 hours
	Acute LC50 0.072 µg/l Marine water	Crustaceans - Amphipoda - Adult	48 hours
	Acute LC50 3.1 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 16 µg/l Fresh water	Fish - Osteichthyes - Adult	96 hours
	Acute LC50 8.7 µg/l Fresh water	Fish - Osteichthyes - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 7.56 µg/l Marine water	Fish - Periophthalmus waltoni - Adult	96 hours
	Acute LC50 10.3 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 9.4 µg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 3 µg/l Marine water	Algae - Nitzschia closterium - Exponential growth phase	72 hours
	Chronic NOEC 2.5 µg/l Marine water	Algae - Nitzschia closterium - Exponential growth phase	72 hours
	Chronic NOEC 3.2 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Chronic NOEC 0.013 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 7 mg/l Fresh water	Aquatic plants - Ceratophyllum demersum	3 days
	Chronic NOEC 0.02 mg/l Fresh water	Crustaceans - Cambarus bartonii - Mature	21 days
	Chronic NOEC 29.4 µg/l Fresh water	Daphnia - Daphnia magna - Juvenile (Fledgling, Hatchling, Weanling)	21 days
	Chronic NOEC 2 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 15 µg/l Fresh water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 5 µg/l Fresh water	Daphnia - Daphnia pulex - Neonate	21 days
	Chronic NOEC 5 µg/l Fresh water	Daphnia - Daphnia pulex - Neonate	21 days
	Chronic NOEC 1.7 µg/l Fresh water	Fish - Cyprinus carpio	4 weeks
	Chronic NOEC 0.8 µg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling,	6 weeks

SECTION 12: Ecological information

		Weanling)	
	Chronic NOEC 0.8 µg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	6 weeks
	Chronic NOEC 1.2 µg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	6 weeks
	Chronic NOEC 0.8 µg/l Fresh water	Fish - Oreochromis niloticus - Juvenile (Fledgling, Hatchling, Weanling)	6 weeks
3,9-bis(2,4-di-tert-butylphenoxy) -2,4,8,10-tetraoxa-3,9-diphosphaspiro[5.5] undecane	EC50 97 mg/l	Algae	72 hours
	LC50 70.7 mg/l	Fish	96 hours

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
benzene-1,2,4-tricarboxylic acid 1,2-anhydride	0.06	-	low
2-ethyl-N,N-bis(2-ethylhexyl) hexylamine	10.131	-	high

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : 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

SECTION 13: Disposal considerations

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.

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.

SECTION 14: Transport information

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
Substance of equivalent concern for human health	benzene-1,2,4-tricarboxylic acid 1,2-anhydride	Candidate	ED/61/2018	6/27/2018
Endocrine disrupting properties for human health	benzene-1,2,4-tricarboxylic acid 1,2-anhydride	Recommended	ED/71/2019	4/14/2021

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.

Industrial emissions (integrated pollution prevention and control) - Air : Listed

Industrial emissions (integrated pollution prevention and control) - Water : Listed

Ozone depleting substances (1005/2009/EU)

Not listed.

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

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

SECTION 15: Regulatory information

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

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
Aquatic Chronic 3, H412	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

SECTION 16: Other information

H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
Resp. Sens. 1	RESPIRATORY SENSITISATION - Category 1
Skin Sens. 1	SKIN SENSITISATION - Category 1
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2
STOT SE 3	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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