

SAFETY DATA SHEET

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

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

1.1 Product identifier

Product identifier : 2027011727090

Product name : AE03053300120 RAL 3001 SIGNAL RED

Product type : Powder.

Other means of : Not available.

identification

Date of issue : 8 November 2022

Version : 1

Date of previous issue : No previous validation

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

Identified uses: Powder coating for industrial use.

Uses advised against: Not for sale to or use by consumers.

1.3 Details of the supplier of the safety data sheet

Axalta Coating Systems Germany GmbH & Co. KG Christbusch 25 DE 42285 Wuppertal

+49 (0)202 529-0

e-mail address of person : sds-competence@axalta.com

responsible for this SDS

Axalta Powder Coating Systems UK Ltd.

Whessoe Road

GB Darlington, County Durham. DL3 0XH

+44 (0)1325 355371

1.4 Emergency telephone number

Supplier

Telephone number : +(44)-870-8200418

Hours of operation :

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to UK CLP/GHS

Aquatic Chronic 3, H412

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Ingredients of unknown

toxicity

: 2 percent of the mixture consists of component(s) of unknown acute oral toxicity 3.1 percent of the mixture consists of component(s) of unknown acute dermal

toxicity

3.1 percent of the mixture consists of component(s) of unknown acute inhalation

toxicity

SECTION 2: Hazards identification

Ingredients of unknown ecotoxicity

: Contains 6.2% of components with unknown hazards to the aquatic environment

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

Signal word : No signal word.

Hazard statements : H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention: P273 - Avoid release to the environment.

Response : Not applicable.

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

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.

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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Туре
3,9-bis(2,4-di-tert-butylphenoxy) -2,4,8,10-tetraoxa- 3,9-diphosphaspiro[5.5]undecane	REACH #: 01-2119977073-34 EC: 247-952-5 CAS: 26741-53-7	≤1	Aquatic Chronic 1, H410 (M=1)	[1]
			See Section 16 for the full text of the H statements declared above.	

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.

<u>Type</u>

[1] Substance classified with a physical, health or environmental hazard

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eve contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower

eyelids. Check for and remove any contact lenses. Get medical attention if irritation

occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

> In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact Flush contaminated skin with plenty of water. Remove contaminated clothing and

shoes. Get medical attention if symptoms occur.

: Wash out mouth with water. If material has been swallowed and the exposed Ingestion

person is conscious, give small quantities of water to drink. Do not induce vomiting

unless directed to do so by medical personnel.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:

> irritation redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contact : No specific data. : No specific data. Ingestion

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed.

The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

: 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 combustion

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.

Date of issue/Date of revision : 11/8/2022 Version : 1 3/12 Date of previous issue : No previous validation

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)

solutions

Recommendations : Not available.

Industrial sector specific : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures

: Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Туре	Exposure	Value	Population	Effects
3,9-bis(2,4-di-tert-butylphenoxy) -2,4,8,10-tetraoxa- 3,9-diphosphaspiro[5.5]undecane	DNEL	Long term Inhalation	0.68 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	2.75 mg/m ³	Workers	Systemic
	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 Dermal	0.78 mg/ kg bw/day	Workers	Systemic

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls

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

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. 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

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

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

Always ensure that gloves are free from defects and that they are stored and used correctly.

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

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Gloves

: Duration / breakthrough time: <1 hour,

Glove material: NBR, nitrile rubber, material thickness as splash protection: at least

0.2 mm, (EN374)

Glove material: NBR, nitrile rubber Material thickness for short-term contact: at least

0.5 mm, (EN374)

SECTION 8: Exposure controls/personal protection

The recommendation for the type or types of glove to use when handling this product is based on information from the following source:

Expert judgment

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

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. Colour : Red.

Odour : Not available. : Not available. **Odour threshold** Melting point/freezing point : Not applicable. Initial boiling point and : Not applicable.

boiling range

: Not available.

Flammability (solid, gas) Upper/lower flammability or

explosive limits

: Not applicable.

Flash point

: Closed cup: Not applicable. [Product does not sustain combustion.]

: 120°C (248°F) **Auto-ignition temperature Decomposition temperature** : Not applicable. pН : Not applicable. **Viscosity** : Not applicable.

Solubility(ies)

Media	Result
cold water	Partially soluble

Solubility in water : Not available.

Miscible with water : No.

Partition coefficient: n-octanol/: Not applicable.

water

Vapour pressure : Not available. Relative density : Not available. **Density** : 1.448 g/cm³ Vapour density : Not applicable.

Date of issue/Date of revision : 11/8/2022 6/12 Date of previous issue Version : 1 : No previous validation

SECTION 9: Physical and chemical properties

Explosive properties : Not available.

Oxidising properties : Not available.

Weight volatiles : 0 % (w/w)

VOC content : 0 % (w/w) (2010/75/EU)

Particle characteristics

Median particle size : Not available.

Percentage of particles with aerodynamic diameter ≤ 10

μm

: 0.02

room temperature (=20°C)

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

: Decomposition products may include the following materials: carbon monoxide,

carbon dioxide, smoke, oxides of nitrogen.

Not applicable

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 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.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
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	-

Acute toxicity estimates

SECTION 11: Toxicological information

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
3,9-bis(2,4-di-tert-butylphenoxy)-2,4,8,10-tetraoxa-3,9-diphosphaspiro[5.5]undecane	5580	N/A	N/A	N/A	N/A

Irritation/Corrosion

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 g	-

Sensitisation

Mutagenicity

Carcinogenicity

Reproductive toxicity

Teratogenicity

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes

of exposure

: Not available.

Potential acute health effects

Eye contact : 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 contactIngestionNo known significant effects or critical hazards.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.

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

Short term exposure

Potential immediate

: Not available.

effects

Potential delayed effects : Not available.

Long term exposure

SECTION 11: Toxicological information

Potential immediate

effects

: Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary: 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.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
3,9-bis(2,4-di-tert-butylphenoxy) -2,4,8,10-tetraoxa- 3,9-diphosphaspiro[5.5] undecane	LC50 70.7 mg/l	Fish	96 hours
	NOEC 0.1 mg/l	Daphnia	21 days

Conclusion/Summary: Not available.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
3,9-bis(2,4-di-tert-butylphenoxy) -2,4,8,10-tetraoxa- 3,9-diphosphaspiro[5.5] undecane	OECD 301 B	9 % - 28 days	-	-

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
3,9-bis(2,4-di-tert-butylphenoxy) -2,4,8,10-tetraoxa- 3,9-diphosphaspiro[5.5] undecane	-	-	Not readily

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (Koc)

: 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.

SECTION 12: Ecological information

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).

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

: Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Waste catalogue

Was	ste code	Wa	aste designation
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.

15 01 10*

packaging containing residues of or contaminated by

hazardous substances

Special precautions

: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

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

14.6 Special precautions for user

: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments

: Not available.

SECTION 15: Regulatory information

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

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

Product/ingredient name	List name	Name on list	Classification	Notes

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.

15.2 Chemical safety assessment

: This product contains substances for which Chemical Safety Assessments are still

required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate

GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and

Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019

No. 720 and amendments

DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level

EUH statement = GB 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

Classification	Justification
Aquatic Chronic 3, H412	Calculation method

Full text of abbreviated H statements

11440	
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications

Date of issue/Date of revision : 11/8/2022 11/12 Version : 1 Date of previous issue : No previous validation

SECTION 16: Other information

Aquatic Chronic 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 Aquatic Chronic 3 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

Date of printing : 11/8/2022 Date of issue/ Date of : 11/8/2022

revision

Date of previous issue : No previous validation

Version : 1

Notice to reader

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