

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Supersedes date 12-May-2026

Revision date 15-May-2026

Revision Number 7.01

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

1.1. Product identifier

Product Code(s)	20358
Safety data sheet number	20358
Product Name	ALUMINIUM, 4,5-DIHYDRO-5-OXO-1-(4-SULFOPHENYL)-4-[(4-SULFOPHENYL)AZO]-1H-PYRAZOLE- 3-CARBOXYLIC ACID COMPLEX
EC Number	235-428-9
CAS No	12225-21-7
Synonyms	CI19140:1, NEELILAKE TARTRAZINE LAKE, NEELICERT FD & C YELLOW 5 LAKE, 315098 EUROLAKE TARTRAZINE MD, 315099N10 DUALAKE FD&C YELLOW NO 5 MD, 951159 DUALAKE FD&C YELLOW NO.5 MD, NEELICERT FD & C YELLOW 5 AL LAKE, NEELILAKE TARTRAZINE LAKE 20 - 28%, FD&C YELLOW 5 ALUM LAKE 24-28%
Pure substance/mixture	Substance
Molecular weight	1429.211

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

Recommended use	Cosmetics Food/Feed additive Colouring agent Pharmaceuticals
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1.3. Details of the supplier of the safety data sheet

Supplier

Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
GBR

For further information, please contact

E-mail address	SDS.EMEA@univarsolutions.com
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306

1.4. Emergency telephone number

Emergency Telephone	SGS - +32 (0)3 575 55 55 (24h)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not classified

2.2. Label elements

Not classified

Hazard statements

Not classified

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
ALUMINIUM, 4,5-DIHYDRO-5-OXO-1-(4-SULFOPHENYL)-4-[(4-SULFOPHENYL)AZO]-1H-PYRAZOLE-3-CARBOXYLIC ACID COMPLEX 12225-21-7	<100 %	235-428-9	-	-	-	-	-

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (UK REACH Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice

First aid personnel should wear appropriate protective equipment during any rescue. Take off immediately all contaminated clothing and wash it before reuse. Use personal protection recommended in Section 8. Remove to fresh air.

Inhalation

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

	Rinse mouth thoroughly with water. If breathing is irregular or stopped, administer artificial respiration. Get medical attention if symptoms occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if symptoms occur.
Skin contact	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if symptoms occur.
Ingestion	Rinse mouth thoroughly with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms

Eyes Dust contact with the eyes can lead to mechanical irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical, CO₂, alcohol-resistant foam or water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical When heated and in case of fire, toxic vapours/gases may be formed.

Hazardous combustion products Carbon oxides. Oxides of sulphur. Nitrogen oxides (NO_x).

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Evacuate area. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like. Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid contact with eyes, skin and clothing. Do not breathe dust. Avoid generation of dust. Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice. Keep away from open flames, hot surfaces and sources of ignition.

General hygiene considerations Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Avoid prolonged exposure to heat and air. See section 10 for more information. Store away from the following materials. Strong oxidising agents. Strong reducing agents.

7.3. Specific end use(s)

Specific use(s)
See section 1 for more information.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
ALUMINIUM, 4,5-DIHYDRO-5-OXO-1-(4-SULFOPHENYL)-4-[(4-SULFOPHENYL)AZO]-1H-PYRAZOLE-3-CARBOXYLIC ACID COMPLEX 12225-21-7		833.3333333 mg/kg bw/day [4] [6]	1469.298246 mg/m ³ [4] [6]

[4] Systemic health effects.
[6] Long term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
ALUMINIUM, 4,5-DIHYDRO-5-OXO-1-(4-SULFOPHENYL)-4-[(4-SULFOPHENYL)AZO]-1H-PYRAZOLE-3-CARBOXYLIC ACID COMPLEX 12225-21-7	208.3333333 mg/kg bw/day [4] [6]	416.667 mg/kg bw/day [4] [6]	362.3188406 mg/m ³ [4] [6]

[4] Systemic health effects.
[6] Long term.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Use eye protection according to EN ISO 16321-1.

Hand protection Wear suitable gloves. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374.

Skin and body protection Wear appropriate clothing to prevent reasonably probable skin contact.

Respiratory protection Use appropriate respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid	
Appearance	solid granules Dusty powder Powder	
Colour	Yellow., Orange., Red	
Odour	Characteristic.	
Odour threshold	No information available	
Property	Values	Remarks • Method
Melting point / freezing point	> 300 °C	
Initial boiling point and boiling range	~ 781.4 °C	
Flammability		No information available.
Flammability Limit in Air		No information available.
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point	109.3 °C	
Autoignition temperature		Product is not selfigniting.
Decomposition temperature	290 °C	
pH		No information available.
pH (as aqueous solution)	4 - 5.5	solution (2 %).
Kinematic viscosity		No information available.
Dynamic viscosity		No information available.
Water solubility	Moderately soluble	
Solubility(ies)		No information available.
Partition coefficient	log Pow: 0.0278	
Vapour pressure		Not applicable.
Relative density		No information available.
Bulk density	0.2 - 0.5 gm/cc	
Liquid Density	No information available	No information available
Relative vapour density		No information available.
Particle characteristics		No information available.
Particle Size	No information available	
Particle Size Distribution	No information available	
Explosive properties	Not considered to be explosive.	
Oxidising properties	Does not meet the criteria for classification as oxidising	

9.2. Other information

Molecular weight	1429.211
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No information available.
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10.2. Chemical stability

Stability	Stable under normal conditions.
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Explosion data

Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials Strong oxidising agents. Strong reducing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon oxides. Nitrogen oxides (NOx). Oxides of sulphur.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation	Inhalation of dust in high concentration may cause irritation of respiratory system.
Eye contact	Dust contact with the eyes can lead to mechanical irritation.
Skin contact	Non-irritating during normal use.
Ingestion	May cause discomfort if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms

Acute toxicity

Numerical measures of toxicity

No information available

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
ALUMINIUM, 4,5-DIHYDRO-5-OXO-1-(4-SUL FOPHENYL)-4-[(4-SULFOPHE NYL)AZO]-1H-PYRAZOLE-3-C ARBOXYLIC ACID COMPLEX	> 2000 mg/kg	> 2000 mg/kg	-

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

Skin corrosion/irritation Non-irritating during normal use. Based on available data the classification criteria are not met.

ALUMINIUM, 4,5-DIHYDRO-5-OXO-1-(4-SULFOPHENYL)-4-[(4-SULFOPHENYL)AZO]-1H-PYRAZOLE-3-CARBOXYLIC ACID

COMPLEX (12225-21-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
	Rabbit	Dermal			non-irritant

Serious eye damage/eye irritation Dust contact with the eyes can lead to mechanical irritation. Based on available data the classification criteria are not met.

ALUMINIUM, 4,5-DIHYDRO-5-OXO-1-(4-SULFOPHENYL)-4-[(4-SULFOPHENYL)AZO]-1H-PYRAZOLE-3-CARBOXYLIC ACID
COMPLEX (12225-21-7)

Method	Species	Exposure route	Effective dose	Exposure time	Results
	Rabbit				non-irritant

Respiratory or skin sensitisation Not sensitizing in animals. Based on available data the classification criteria are not met.

Germ cell mutagenicity Based on available data the classification criteria are not met.

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

Reproductive toxicity Based on available data the classification criteria are not met.

STOT - single exposure Based on available data the classification criteria are not met.

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard Based on available data the classification criteria are not met.

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity The environmental impact of this product has not been fully investigated.

ALUMINIUM, 4,5-DIHYDRO-5-OXO-1-(4-SULFOPHENYL)-4-[(4-SULFOPHENYL)AZO]-1H-PYRAZOLE-3-CARBOXYLIC ACID
COMPLEX (12225-21-7)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
	Brachydanio rerio	LC50	> 100 mg/L	96 hours	
	Daphnia magna	EC50	360.4 mg/L	48 hours	
	Algae	EC50	> 200 mg/L	72 hours	

12.2. Persistence and degradability

Persistence and degradability Inherently Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulation Material does not bioaccumulate.

Bioconcentration factor (BCF) 3.16

Component Information

Chemical name	Partition coefficient
ALUMINIUM, 4,5-DIHYDRO-5-OXO-1-(4-SULFOPHENYL)-4-[(4-SULFOPHENYL)AZO]-1H-PYRAZOLE-3-CARBOXYLIC ACID COMPLEX	0.028

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
ALUMINIUM, 4,5-DIHYDRO-5-OXO-1-(4-SULFOPHENYL)-4-[(4-SULFOPHENYL)AZO]-1H-PYRAZOLE-3-CARBOXYLIC ACID COMPLEX	The substance is not PBT / vPvB

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information

IATA

- 14.1 UN number or ID number Not regulated
- 14.2 UN proper shipping name Not regulated
- 14.3 Transport hazard class(es) Not regulated
- 14.4 Packing group Not regulated
- 14.5 Environmental hazards No
- 14.6 Special precautions for user
- Special Provisions None

IMDG

- 14.1 UN number or ID number Not regulated
- 14.2 UN proper shipping name Not regulated

14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	No
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information

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

National regulations

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (UK REACH - Annex XIV).

This product does not contain substances subject to restriction (UK REACH - Annex XVII).

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Not applicable

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECI	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

TSCA	- United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL	- Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS	- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS	- Japan Existing and New Chemical Substances
IECSC	- China Inventory of Existing Chemical Substances
KECL	- Korean Existing and Evaluated Chemical Substances
PICCS	- Philippines Inventory of Chemicals and Chemical Substances
AIIC	- Australian Inventory of Industrial Chemicals
NZIoC	- New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report	No information available
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SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		

Revision Note **SDS sections updated 7 16**

Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method

**20358 - ALUMINIUM,
4,5-DIHYDRO-5-OXO-1-(4-SULFOPHENYL)-4-[(4-SULF
OPHENYL)AZO]-1H-PYRAZOLE-3-CARBOXYLIC ACID
COMPLEX**

Revision date 15-May-2026

STOT - repeated exposure

Acute aquatic toxicity

Chronic aquatic toxicity

Aspiration hazard

Ozone

Calculation method

Calculation method

Calculation method

Calculation method

Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)

European Chemicals Agency (ECHA) (ECHA_API)

Environmental Protection Agency

Acute Exposure Guideline Level(s) (AEGl(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

U.S. National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications

Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme

Organisation for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Prepared By Lisa Bland

Supersedes date 12-May-2026

Revision date 15-May-2026

This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet