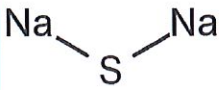
Disodium sulphide

Substance identity

EC / List no.: 215-211-5

CAS no.: 1313-82-2, 27610-45-3

Mol. formula: Na2S



Hazard classification & labelling

Danger! According to the **harmonised classification and labelling** (ATP01) approved by the European Union, this substance is toxic in contact with skin, causes severe skin burns and eye damage, is very toxic to aquatic life and is harmful if swallowed.

Additionally, the classification provided by companies to ECHA in **REACH registrations** identifies that this substance is toxic if swallowed, causes serious eye damage and may be corrosive to metals.

About this substance

This substance is manufactured and/or imported in the European Economic Area in 10 000 - 100 000 tonnes per year.

This substance is used by consumers, in articles, by professional workers (widespread uses), in formulation or re-packing, at industrial sites and in manufacturing.

Consumer Uses

ECHA has no public registered data indicating whether or in which chemical products the substance might be used. ECHA has no public registered data on the routes by which this substance is most likely to be released to the environment.

Article service life

ECHA has no public registered data on the routes by which this substance is most likely to be released to the environment. ECHA has no public registered data indicating whether or into which articles the substance might have been processed.

Widespread uses by professional workers

ECHA has no public registered data indicating whether or in which chemical products the substance might be used. ECHA has no public registered data on the types of manufacture using this substance. ECHA has no public registered data on the routes by which this substance is most likely to be released to the environment.

Formulation or re-packing

ECHA has no public registered data indicating whether or in which chemical products the substance might be used. ECHA has no public registered data on the routes by which this substance is most likely to be released to the environment.

Uses at industrial sites

ECHA has no public registered data indicating whether or in which chemical products the substance might be used. ECHA has no public registered data on the types of manufacture using this substance. ECHA has no public registered data on the routes by which this substance is most likely to be released to the environment.

Manufacture

ECHA has no public registered data on the routes by which this substance is most likely to be released to the environment.

The InfoCard summarises the non-confidential data on substances as held in the databases of the European Chemicals Agency (ECHA), including data provided by third parties. The InfoCard is automatically generated. Information requirements under different legislative frameworks may therefore not be up-to-date or complete. Substance manufacturers and importers are responsible for consulting official publications. This InfoCard is covered by the ECHA Legal Disclaimer.

ECHA EUROPEAN CHEMICALS AGENCY

about INFOCARD - Last updated: 30/10/2017

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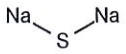
This Brief Profile is covered by the ECHA Legal Notice.

Disodium sulphide

Brief Profile - Last updated: 12/01/2018

Substance Description

Substance identity



EC / List name: Disodium sulphide

IUPAC name: disodium sulfanediide

Other names

EC / List no.:	215-211-5
CAS no.:	1313-82-2, 27610-45-3
Index number:	016-009-00-8
Molecular formula:	Na2S

SMILES:	[Na+].[Na+].[S--]
InChI:	InChI=1S/2Na.S/q2*+1;-2 AuxInfo=1/0/N:1;2;3/rA:3Na+Na+S-2/rB:;;/rC:;3.4907,0,0;0,-5.7493,0;
Type of substance:	Mono constituent substance
Origin:	Inorganic
Registered compositions:	19
Of which contain:	1 impurities relevant for classification
	0 additives relevant for classification
Substance Listed:	EINECS (European INventory of Existing Commercial chemical Substances) List

Hazard classification & labelling

Danger! According to the **harmonised classification and labelling** (ATP01) approved by the European Union, this substance is toxic in contact with skin, causes severe skin burns and eye damage, is very toxic to aquatic life and is harmful if swallowed.

Additionally, the classification provided by companies to ECHA in **REACH registrations** identifies that this substance is toxic if swallowed, causes serious eye damage and may be corrosive to metals.

Breakdown of all 813 C&L notifications submitted to ECHA

Aquatic Acute 1	H400	✓
Skin Corr. 1B	H314	✓
Acute Tox. 3	H311	✓
Acute Tox. 3	H301	
Eye Dam. 1	H318	
Acute Tox. 4	H302	✓
Met. Corr. 1	H290	
Aquatic Chronic 1	H410	
STOT SE 3	H335	
Flam. Sol. 1	H228	
Repr. 2	H361	
Skin Corr. 1C	H314	
Self-heat. 1	H251	
STOT SE 2	H371	

0% 10%20%30%40%50%60%70%80%90%100%

✓ Harmonised Classification
REACH registration dossiers notifications
CLP notifications

ℹ At least one notifier has indicated that an impurity or an additive present in the substance impacts the notified classification.

Properties of concern

Regulatory activities

Registration, Evaluation, Authorisation & Restriction of Chemicals (REACH)

Registration

Pre-registration:	Substance pre-registered under REACH.
Registration:	This substance has 22 active registrations under REACH, 1 Joint Submission(s) and 0 Individual Submission(s).

Evaluation

Dossier Evaluation:

Substance Evaluation:

Authorisation

Candidate List:

Annex XIV (Authorisation List):

Restriction

Annex XVII (Restriction List):

Classification Labelling & Packaging (CLP)

Harmonised C&L:	A European Union Harmonised Classification & Labelling has been assigned to this substance.
Notification:	Classification & Labelling has been notified by industry to ECHA for this substance.

Biocidal Products Regulation (BPR)

Active Substance:

Biocidal Products:

Prior Informed Consent (PIC)

Annex I:

Annex V:

About this substance

General

This substance is manufactured and/or imported in the European Economic Area in 10 000 - 100 000 tonnes per year.

This substance is used by consumers, in articles, by professional workers (widespread uses), in formulation or re-packing, at industrial sites and in manufacturing.

Consumer Uses

This substance is used in the following products: textile treatment products and dyes.

Other release to the environment of this substance is likely to occur from: indoor use.

Article service life

ECHA has no public registered data on the use of this substance in activities or processes at the workplace.

Other release to the environment of this substance is likely to occur from: indoor use in long-life materials with low release rate (e.g. flooring, furniture, toys, construction materials, curtains, foot-wear, leather products, paper and cardboard products, electronic equipment) and outdoor use in long-life materials with low release rate (e.g. metal, wooden and plastic construction and building materials).

This substance can be found in products with material based on: fabrics, textiles and apparel (e.g. clothing, mattress, curtains or carpets, textile toys).

Widespread uses by professional workers

ECHA has no public registered data indicating whether or in which chemical products the substance might be used.

This substance is used for the manufacture of: textile, leather or fur.

This substance is used in the following activities or processes at workplace: treatment of articles by dipping and pouring.

Other release to the environment of this substance is likely to occur from: indoor use.

Formulation or re-packing

This substance has an industrial use resulting in manufacture of another substance (use of intermediates).

This substance is used in the following activities or processes at workplace: transfer of chemicals, mixing in open batch processes, closed processes with no likelihood of exposure, closed, continuous processes with occasional controlled exposure, closed batch processing in synthesis or formulation, batch processing in synthesis or formulation with opportunity for exposure, transfer of substance into small containers, laboratory work, handling of solid inorganic substances (e.g. ores and raw metal oxides, packaging/mixing/blending and weighing of metal powders), calendering operations, industrial spraying, roller or brushing applications, treatment of articles by dipping and pouring, production of mixtures or articles by tabletting, compression, extrusion or pelletisation, hand mixing with intimate contact only with personal protective equipment available, potentially closed industrial processing with minerals/metals at elevated temperature (e.g. smelters, furnaces, refineries, coke ovens), production of metal powders (hot processes) and production of metal powders (wet processes).

Release to the environment of this substance can occur from industrial use: formulation of mixtures and manufacturing of the substance.

Uses at industrial sites

This substance is used in the following products: pH regulators and water treatment products, water treatment chemicals, leather treatment products, polymers, paper chemicals and dyes, textile treatment products and dyes, metal surface treatment products, laboratory chemicals, adhesives and sealants, metals and pharmaceuticals. This substance has an industrial use resulting in manufacture of another substance (use of intermediates).

This substance is used in the following areas: formulation of mixtures and/or re-packaging and municipal supply (e.g. electricity, steam, gas, water) and sewage treatment. This substance is used for the manufacture of: chemicals, textile, leather or fur, pulp, paper and paper products, plastic products, rubber products, metals and mineral products (e.g. plasters, cement).

This substance is used in the following activities or processes at workplace: transfer of chemicals, transfer of substance into small containers, closed processes with no likelihood of exposure, closed, continuous processes with occasional controlled exposure, closed batch processing in synthesis or formulation, batch processing in synthesis or formulation with opportunity for exposure, mixing in open batch processes, handling of solid inorganic substances (e.g. ores and raw metal oxides, packaging/mixing/blending and weighing of metal powders), hand mixing with intimate contact only with personal protective equipment available, laboratory work, treatment of articles by dipping and pouring, production of mixtures or articles by tabletting, compression, extrusion or pelletisation, roller or brushing applications, calendering operations, potentially closed industrial processing with minerals/metals at elevated temperature (e.g. smelters, furnaces, refineries, coke ovens), production of metal powders (hot processes), production of metal powders (wet processes), industrial spraying and heat / pressure transfer fluids in closed systems.

Release to the environment of this substance can occur from industrial use: as processing aid, as processing aid, as an intermediate step in further manufacturing of another substance (use of intermediates), for thermoplastic manufacture, manufacturing of the substance and in the production of articles.

Manufacture

This substance is used in the following activities or processes at workplace: transfer of chemicals, closed processes with no likelihood of exposure, closed, continuous processes with occasional controlled exposure, closed batch processing in synthesis or formulation, batch processing in synthesis or formulation with opportunity for exposure, mixing in open batch processes, transfer of substance into small containers, laboratory work, handling of solid inorganic substances (e.g. ores and raw metal oxides, packaging/mixing/blending and weighing of metal powders), calendering operations, industrial spraying, roller or brushing applications, production of mixtures or articles by tabletting, compression, extrusion or pelletisation, hand mixing with intimate contact only with personal protective equipment available, potentially closed industrial processing with minerals/metals at elevated temperature (e.g. smelters, furnaces, refineries, coke ovens), production of metal powders (hot processes), production of metal powders (wet processes) and treatment of articles by dipping and pouring.

Release to the environment of this substance can occur from industrial use: manufacturing of the substance, formulation of mixtures, as an intermediate step in further manufacturing of another substance (use of intermediates), as processing aid, for thermoplastic manufacture and as processing aid.

Precautionary Measures and safe use

Precautions for using this substance have been recommended by its registrants under REACH, as follows:

Prevention statements

When handling this substance: avoid release to the environment; wear protective gloves and/or clothing, and eye and/or face protection as specified by manufacturer/supplier.

Response statements

In case of incident: If in eyes: rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If on skin: wash with soap and water.

Guidance on the safe use of the substance provided by manufacturers and importers of this substance.

Registrants/suppliers

Active

- ARCHROMA IBÉRICA, S.L., ZAL-Prat c/Cal Coracero, 46-56 08820 El Prat de Llobregat Spain
- CHEMICAL INSPECTION & REGULATION SERVICE LIMITED, Unit 1 Ardee Business Park, Hale Street Co. Louth Ardee Ireland
- DSM Engineering Plastics B.V., Urmonderbaan 22 6167RD Geleen Netherlands
- DyStar Colours Distribution GmbH, Am Prime-Parc 10-12 D-65479 Raunheim Germany
- Envigo Consulting Limited, Woolley Road PE28 4HS Huntingdon United Kingdom
- General Química S.A.U., Carretera Miranda-Puentelarrá km 5 01213 Comunión Alava Spain
- ICS GmbH, Im Chemiepark Bitterfeld-Wolfen Areal B An der Bahn 1 06803 Bitterfeld-Wolfen Sachsen-Anhalt Germany
- Lanxess Deutschland GmbH, Kennedyplatz 1 50569 Köln Germany
- Monarch Chemicals Limited, New Road ME12 1LZ Sheerness Kent United Kingdom
- PCAS, 23 rue Bossuet ZI de la Vigne aux Loups 91160 LONGJUMEAU France
- Polski Koncern Naftowy ORLEN SA, ul. Chemików 7 09-411 Płock Poland
- Quadrimex Sulfur Chemicals GmbH & Co. KG, Am Hauptor Bau 3651 06237 Leuna Sachsen-Anhalt Germany
- Reach & Colours Trade Kft, Zahora utca 1/C 2161 Csomád Hungary
- REACH COMPLIANCE SERVICES LIMITED, Suite 1E, Paramount Court, Corrig Road, Sandyford Dublin 18 Dublin Ireland
- REACH&Colours Kft, Petofi Sandor utca 11 I Em. 4 1052 Budapest Hungary
- REACH24H CONSULTING GROUP, Paramount Court, Corrig Road, Sandyford Dublin18 Dublin Ireland
- Solvay Chimica Italia S.p.A., VIA PIAVE 6 57013 ROSIGNANO SOLVAY Italy
- Tessenderlo Group N.V., Troonstraat 130 BE-1050 Brussel Belgium
- TIB Chemicals AG, Muelheimer Str. 16-22 68219 Mannheim Germany
- Toscolapi s.r.l., Piazza Rita Levi Montalcini ,2 56029 Santa Croce sull'Arno Italy
- Unichimica Srl, Via Roma, 292 36040 Torri di Quartesolo (VI) Italy

Inactive

Other names

IUPAC names

- -
- Disodium monosulfide
- disodium sulfanediide
- Disodium sulfanide
- Disodium Sulfide
- disodium sulfide/sodium sulfide
- Disodium Sulphide
- disodium sulphide/sodium sulpide
- disodium suplhide
- Mieszanina poreakcyjna zasiarczona
- Sodium sulfide
- sodium sulfidosodium
- sodium sulfite
- Sodium Sulphide

Regulatory processes names

- disodium sulfide
- Disodium sulphide
- sodium sulfide

Trade names

- disodium sulfide
- Natriummonosulfid
- Natriumsulfid
- Schwefelnatrium
- sodium sulfide
- Sodium sulphide
- Sulfuro de sodio

Other names

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ECHA

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Disodium sulphide

Brief Profile - Last updated: 12/01/2018

Substance Description

Scientific properties

Physical and chemical properties

This section provides physicochemical information compiled from all automatically processable data from REACH registration dossiers that is available to ECHA at the time of generation. The quality and correctness of the information remains the responsibility of the data submitter. The Agency thus cannot guarantee the correctness of the information displayed.

Appearance/physical state / colour

Study results: 9 studies submitted, 9 studies processed

Type of Study provided

Studies with data				
Key study	1			
Weight of evidence				8

Data waiving: no waivers

Summaries: 0 summaries submitted, 0 summaries processed

No data available

C **Physical state at 20°C and 1013 hPa**
Solid (100%) [9]

C **Form**
Crystalline (47%), Other (27%), Flakes (20%), Not specified (7%) [15]

C **Odour**
Other (100%) [2]

C **Substance type**
Inorganic (100%) [6]

Melting/freezing point

Study results: 6 studies submitted, 2 studies processed

Type of Study provided

Studies with data				
Key study	2			
Supporting study				4

Data waiving: no waivers

Summaries: 0 summaries submitted, 0 summaries processed

No data available

R **Melting / freezing point**
69 - 600 °C @ 99.7 kPa [2]

Boiling point

Study results: 2 studies submitted, 0 studies processed

No automatically processable data submitted

Type of Study provided

Studies with data				
Key study	1			

Data waiving: Other 1

Summaries: 0 summaries submitted, 0 summaries processed

No data available

Density

Study results: 4 studies submitted, 1 study processed

R **Relative density**
1.64 @ 21.1 °C [1]

Type of Study provided

Studies with data				
Key study	1			
Supporting study				3

Data waiving: no waivers

Summaries: 0 summaries submitted, 0 summaries processed

No data available

Vapour pressure

Study results: 1 study submitted, 0 studies processed

No automatically processable data submitted

Type of Study provided

Studies with data

Data waiving: Other 1

Summaries: 0 summaries submitted, 0 summaries processed

No data available

Partition coefficient

Study results: 1 study submitted, 0 studies processed

No automatically processable data submitted

Type of Study provided

Studies with data

Data waiving: Other 1

Summaries: 0 summaries submitted, 0 summaries processed

No data available

Water solubility

Study results: 4 studies submitted, 1 study processed

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

R Water solubility (mass/vol.)
178 g/L @ 20 °C and pH 12.8 [1]

Studies with data				
Key study	1			
Supporting study				3

Data waiving: no waivers

No data available

Solubility in organic solvents / fat solubility

Data not provided by the registrant

Surface tension

Study results: 1 study submitted, 0 studies processed

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

No automatically processable data submitted

Studies with data				

Data waiving: Other 1

No data available

Flash point

Study results: 1 study submitted, 0 studies processed

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

No automatically processable data submitted

Studies with data				

Data waiving: Other 1

No data available

Auto flammability

Study results: 1 study submitted, 0 studies processed

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

No automatically processable data submitted

Studies with data				
Key study	1			

Data waiving: no waivers

No data available

Flammability

Study results: 3 studies submitted, 2 studies processed

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

C Interpretation of results
Non flammable (100%) [2]

Studies with data				
Key study	2			

Data waiving: Sci. unjustified 1

No data available

Explosiveness

Study results: 1 study submitted, 0 studies processed

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

No automatically processable data submitted

Studies with data				

Data waiving: Sci. unjustified 1

No data available

Oxidising

Study results: 1 study submitted, 0 studies processed

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

No automatically processable data submitted

Studies with data				

Data waiving: Other 1

No data available

Oxidation reduction potential

Data not provided by the registrant

pH

Study results: 2 studies submitted, 0 studies processed

Type of Study provided

No summary exists for this scientific endpoint

No automatically processable data submitted

Studies with data				
Supporting study	2			

Data waiving: no waivers

Dissociation constant

Study results: 1 study submitted, 0 studies processed

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

No automatically processable data submitted

Studies with data				

Data waiving: Sci. unjustified 1

No data available

Viscosity

Study results: 1 study submitted, 0 studies processed

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

⚠ No automatically processable data submitted

Studies with data					Data waiving	
					Sci. unjustified	1

⚠ No data available

Environmental fate and pathways

This section provides environmental fate and pathways information compiled from all automatically processable data from REACH registration dossiers that is available to ECHA at the time of generation. The quality and correctness of the information remains the responsibility of the data submitter. The Agency thus cannot guarantee the correctness of the information displayed.

Phototransformation in air

Study results: 1 study submitted, 0 studies processed

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

⚠ No automatically processable data submitted

Studies with data					Data waiving	
					Other	1

⚠ No data available

Hydrolysis

Study results: 1 study submitted, 0 studies processed

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

⚠ Study data not processed for brief profile

Studies with data					Data waiving
					no waivers
Key study	1				

⚠ No data available

Phototransformation in water

Study results: 1 study submitted, 0 studies processed

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

⚠ No automatically processable data submitted

Studies with data					Data waiving	
					Other	1

⚠ No data available

Phototransformation in soil

Study results: 1 study submitted, 0 studies processed

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

⚠ No automatically processable data submitted

Studies with data					Data waiving	
					Other	1

⚠ No data available

Biodegradation in water - screening tests

Study results: 1 study submitted, 0 studies processed

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

⚠ No automatically processable data submitted

Studies with data					Data waiving	
					Other	1

⚠ No data available

Biodegradation in water & sediment - simulation tests

⚠ Data not provided by the registrant

Biodegradation in soil

Study results: 1 study submitted, 0 studies processed

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

⚠ Study data not processed for brief profile

Studies with data					Data waiving	
					Other	1

⚠ No data available

Bioaccumulation: aquatic / sediment

Study results: 15 studies submitted, 0 studies processed

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

⚠ Study data not processed for brief profile

Studies with data					Data waiving
					no waivers
Supporting study	6			1	
Weight of evidence	8				

⚠ No data available

Bioaccumulation: terrestrial

⚠ Data not provided by the registrant

Adsorption/desorption

Study results: 1 study submitted, 0 studies processed

⚠ No automatically processable data submitted

Type of Study provided

Studies with data				
Key study				
Supporting study				

Data waiving	
Other	1

Summaries: 0 summaries submitted, 0 summaries processed

⚠ No data available

Henrys law constant (H)

⚠ Data not provided by the registrant

Distribution modelling

⚠ Data not provided by the registrant

Ecotoxicological information

This section provides ecotoxicological information compiled from all automatically processable data from REACH registration dossiers that is available to ECHA at the time of generation. The quality and correctness of the information remains the responsibility of the data submitter. The Agency thus cannot guarantee the correctness of the information displayed.

Predicted No-Effect Concentration (PNEC)

R Summaries: 1 summary submitted, 1 summary processed

The Predicted No-Effect Concentration (PNEC) value is the concentration of a substance below which adverse effects in the environment are not expected to occur. Please note that when more than one summary is provided, PNEC values may refer to constituents of the substance and not to the substance as a whole. More detailed information is available in the dossiers.

Hazard for Aquatic Organisms	
Freshwater	270 ng/L (1)
Intermittent releases (freshwater)	270 ng/L (1)
Marine water	270 ng/L (1)
Intermittent releases (marine water)	-
Sewage treatment plant (STP)	16 µg/L (1)
Sediment (freshwater)	17.6 µg/kg sediment dw (1)
Sediment (marine water)	17.6 µg/kg sediment dw (1)

Hazard for Air	
Air	-
Hazard for Terrestrial Organism	
Soil	-
Hazard for Predators	
Secondary poisoning	-

Short-term toxicity to fish

Study results: 59 studies submitted, 2 studies processed

P/R Results
LC50 (4 days) 2.7 - 7 960 000 µg/L [3]

Studies with data				
Key study	1			1
Supporting study	40			17

Data waiving: no waivers

Summaries: 0 summaries submitted, 0 summaries processed

⚠ No data available

Long-term toxicity to fish

Study results: 20 studies submitted, 1 study processed

P/R Results
NOEC (2.263 years) 4.6 µg/L [1]
NOEC (28 days) 9.2 µg/L [1]
LOEC (2.263 years) 9.2 µg/L [1]
LOEC (28 days) 9.2 µg/L [1]

Studies with data				
Key study	1			
Supporting study	12			7

Data waiving: no waivers

Summaries: 0 summaries submitted, 0 summaries processed

⚠ No data available

Short-term toxicity to aquatic invertebrates

Study results: 91 studies submitted, 3 studies processed

P/R Results
LC50 (4 days) 20 - 342 µg/L [3]
LC50 (48 h) 2.083 - 3.08 g/L [2]

Studies with data				
Key study	1			2
Supporting study	68			20

Data waiving: no waivers

Summaries: 0 summaries submitted, 0 summaries processed

⚠ No data available

Long-term toxicity to aquatic invertebrates

Study results: 5 studies submitted, 0 studies processed

⚠ No automatically processable data submitted

Studies with data				
Supporting study	3			1

Data waiving	
Other	1

Summaries: 0 summaries submitted, 0 summaries processed

⚠ No data available

Toxicity to aquatic algae and cyanobacteria

Study results 37 studies submitted
2 studies processed

Type of Study provided

Summaries 0 summaries submitted
0 summaries processed

P/R Results
EC50 (5 days) 1.285 - 1.9 g/L [2]
EC50 (4 h) 104 - 1 500 µg/L [2]
NOEC (4 h) 41 - 770 µg/L [2]
LOEC (4 h) 123 - 1 600 µg/L [2]

Studies with data				
Key study	1			1
Supporting study	35			

Data waiving
no waivers

⚠ No data available

Toxicity to aquatic plants other than algae

⚠ Data not provided by the registrant

Toxicity to microorganisms

Study results 11 studies submitted
1 study processed

Type of Study provided

Summaries 0 summaries submitted
0 summaries processed

P/R Results
NOEC (37 days) 5.4 - 8 g/L [2]

Studies with data				
Key study				1
Supporting study	8			1

Data waiving
Other 1

⚠ No data available

Sediment toxicity

Study results 15 studies submitted
1 study processed

Type of Study provided

Summaries 0 summaries submitted
0 summaries processed

P/R Results
NOEC (49 days) 1.1 - 3.1 mg/L [5]
LOEC (49 days) 1.1 - 5.7 mg/L [5]

Studies with data				
Key study	1			
Supporting study	14			

Data waiving
no waivers

⚠ No data available

Endocrine disrupter testing in aquatic vertebrates – in vivo

⚠ Data not provided by the registrant

Toxicity to terrestrial macroorganisms except arthropods

Study results 1 study submitted
0 studies processed

Type of Study provided

Summaries 0 summaries submitted
0 summaries processed

⚠ No automatically processable data submitted

Studies with data

Data waiving
Other 1

⚠ No data available

Toxicity to terrestrial arthropods

Study results 1 study submitted
0 studies processed

Type of Study provided

Summaries 0 summaries submitted
0 summaries processed

⚠ No automatically processable data submitted

Studies with data

Data waiving
Other 1

⚠ No data available

Toxicity to terrestrial plants

Study results 1 study submitted
0 studies processed

Type of Study provided

Summaries 0 summaries submitted
0 summaries processed

⚠ No automatically processable data submitted

Studies with data

Data waiving
Other 1

⚠ No data available

Toxicity to soil microorganisms

Study results 1 study submitted
0 studies processed

Type of Study provided

Summaries 0 summaries submitted
0 summaries processed

⚠ No automatically processable data submitted

Studies with data

Data waiving
Other 1

⚠ No data available

Toxicity to birds

Study results 1 study submitted
0 studies processed

Type of Study provided

Summaries 0 summaries submitted
0 summaries processed

⚠ No automatically processable data submitted

Studies with data

Data waiving
Other 1

⚠ No data available

Toxicity to mammals

⚠ Data not provided by the registrant

Toxicological information

This section provides toxicological information compiled from all automatically processable data from REACH registration dossiers that is available to ECHA at the time of generation. The quality and correctness of the information remains the responsibility of the data submitter. The Agency thus cannot guarantee the correctness of the information displayed.

Derived No- or Minimal Effect Level (DN(M)EL)

M/C Summaries

1 summary submitted
1 summary processed

The derived no- or minimum effect level (DN(M)EL) is the level of exposure above which a human should not be exposed to a substance. Please note that when more than one summary is provided, DN(M)EL values may refer to constituents of the substance and not to the substance as a whole. More detailed information is available in the dossiers.

Data for WORKERS

INHALATION Exposure	Threshold	Most sensitive study
Systemic Effects		
Long-term:	(DNEL) 13.84 mg/m³	repeated dose toxicity
Acute /short term:	-	-
Local Effects		
Long-term:	(DNEL) 1.6 mg/m³	repeated dose toxicity
Acute /short term:	-	-

DERMAL Exposure	Threshold	Most sensitive study
Systemic Effects		
Long-term:	-	-
Acute /short term:	-	-
Local Effects		
Long-term:	-	-
Acute /short term:	-	-

EYE Exposure

-

Data for the GENERAL POPULATION

INHALATION Exposure	Threshold	Most sensitive study
Systemic Effects		
Long-term:	-	-
Acute /short term:	-	-
Local Effects		
Long-term:	-	-
Acute /short term:	-	-

DERMAL Exposure	Threshold	Most sensitive study
Systemic Effects		
Long-term:	-	-
Acute /short term:	-	-
Local Effects		
Long-term:	-	-
Acute /short term:	-	-

ORAL Exposure	Threshold	Most sensitive study
Systemic Effects		
Long-term:	-	-
Acute /short term:	-	-

EYE Exposure

-

Toxicokinetics, metabolism, and distribution

Study results

Type of Study provided

Summaries

0 summaries submitted
0 summaries processed

⚠ No data available

Study data: basic toxicokinetics

5 studies submitted
0 studies processed

⚠ Study data not processed for brief profile

Studies with data				
Weight of evidence	4			
Other				1

Data waiving

no waivers

Study data: dermal absorption

1 study submitted
0 studies processed

⚠ Study data not processed for brief profile

Studies with data				

Data waiving

Sci. unjustified	1

Acute toxicity

Study results		Type of Study provided		Summaries
				0 summaries submitted 0 summaries processed
oral	4 studies submitted 2 studies processed	oral		⚠ No data available
P/R Results LD50 226.8 - 1 122 mg/kg bw (rat) [6]		Studies with data	Data waiving	
M/C Interpretations of results Toxicity Category III [1]		Supporting study: 2	no waivers	
		Weight of evidence: 2		
inhalation	1 study submitted 0 studies processed	inhalation		
⚠ No automatically processable data submitted		Studies with data	Data waiving	
			Other: 1	
dermal	2 studies submitted 0 studies processed	dermal		
⚠ No automatically processable data submitted		Studies with data	Data waiving	
		Other: 1	Other: 1	
other routes	0 studies submitted 0 studies processed	other routes		
⚠ No data available		Studies with data	Data waiving	
			no waivers	

Irritation / corrosion

Study results		Type of Study provided		Summaries
				0 summaries submitted 0 summaries processed
Study data: skin	1 study submitted 0 studies processed	Study data: skin		⚠ No data available
⚠ Study data not processed for brief profile		Studies with data	Data waiving	
			Other: 1	
Study data: eye	1 study submitted 0 studies processed	Study data: eye		
⚠ Study data not processed for brief profile		Studies with data	Data waiving	
			Other: 1	

Sensitisation

Study results		Type of Study provided		Summaries
				0 summaries submitted 0 summaries processed
Study data: skin	1 study submitted 0 studies processed	Study data: skin		⚠ No data available
⚠ Study data not processed for brief profile		Studies with data	Data waiving	
			Other: 1	
Study data: respiratory	0 studies submitted 0 studies processed	Study data: respiratory		
⚠ Study data not processed for brief profile		Studies with data	Data waiving	
			no waivers	

Repeated dose toxicity

Study results

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

Study data: oral — 2 studies submitted, 0 studies processed

⚠ No automatically processable data submitted

Study data: oral

Studies with data				
Supporting study	1			

Data waiving

Other	1

⚠ No data available

Study data: inhalation — 5 studies submitted, 3 studies processed

P/R **Results**

NOAEC (rat): 14 - 111 mg/m³ air [4]
NOAEC (rat): 10 - 80 ppm [4]
NOAEC (mouse): 14 - 111 mg/m³ air [2]
NOAEC (mouse): 10 - 80 ppm [2]

Study data: inhalation

Studies with data				
Key study				3
Supporting study				2

Data waiving

no waivers

Study data: dermal — 1 study submitted, 0 studies processed

⚠ No automatically processable data submitted

Study data: dermal

Studies with data				

Data waiving

Other	1

Genetic toxicity

Study results

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

Study data: in vitro — 2 studies submitted, 0 studies processed

⚠ Study data not processed for brief profile

Study data: in vitro

Studies with data				
Key study	2			

Data waiving

no waivers

⚠ No data available

Study data: in vivo — 1 study submitted, 0 studies processed

⚠ Study data not processed for brief profile

Study data: in vivo

Studies with data				
Key study	1			

Data waiving

no waivers

Carcinogenicity

Study results — 1 study submitted, 0 studies processed

⚠ Study data not processed for brief profile

Type of Study provided

Studies with data				

Data waiving

Other	1

Summaries: 0 summaries submitted, 0 summaries processed

⚠ No data available

Toxicity to reproduction

Study results

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

Study data reproduction: 2 studies submitted, 0 studies processed

⚠ Study data not processed for brief profile

Study data: reproduction

Studies with data				
Key study				1

Data waiving	
Other	1

⚠ No data available

Study data developmental: 5 studies submitted, 0 studies processed

⚠ Study data not processed for brief profile

Study data: developmental

Studies with data				
Key study				1
Supporting study				3

Data waiving	
Other	1

Study data other studies: 0 studies submitted, 0 studies processed

⚠ Study data not processed for brief profile

Study data: other studies

Studies with data				

Data waiving
no waivers

Neurotoxicity

Study results: 13 studies submitted, 0 studies processed

Type of Study provided

Summaries: 0 summaries submitted, 0 summaries processed

⚠ Study data not processed for brief profile

Studies with data				
Supporting study	4			9

Data waiving
no waivers

⚠ No data available

Immunotoxicity — ⚠ Data not provided by the registrant

Endocrine disrupter mammalian screening - in vivo — ⚠ Data not provided by the registrant

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Legend

Type of study

- Experimental results
- Read across based on grouping of substance (category approach) or Read-across from supporting substance (structural analogue or surrogate)
- Estimated by calculation or (Q)SAR
- Experimental study planned, other or unspecified

Type of aggregation

- C — Concatenated distinct values
- R — Range of values
- P/R — Prioritisation (Eco)Toxicology AND Range of values
- M/C — Most Conservative of values

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