

Calcium carbonate

Substance identity

EC / List no.: 207-439-9

CAS no.: 471-34-1, 7440-70-

2

Mol. formula: CaCO_3



Ca^{2+}

Hazard classification & labelling



Danger! According to the classification provided by companies to ECHA in REACH registrations this substance causes serious eye damage, causes skin irritation and may cause respiratory irritation.

At least one company has indicated that the substance classification is affected by impurities or additives.

About this substance

This substance is manufactured and/or imported in the European Economic Area in 1 000 000 - 10 000 000 tonnes per year.

This substance is used in the following products: pH regulators and water treatment products, lubricants and greases, hydraulic fluids, adhesives and sealants, coating products, fertilisers, adsorbents, fillers, putties, plasters, modelling clay, heat transfer fluids, paper chemicals and dyes, polymers, metal working fluids, biocides (e.g. disinfectants, pest control products), laboratory chemicals, cosmetics and personal care products, metals, metal surface treatment products, textile treatment products and dyes, water treatment chemicals, air care products, anti-freeze products, finger paints, non-metal-surface treatment products, leather treatment products, plant protection products, photo-chemicals, polishes and waxes, semiconductors, washing & cleaning products, water softeners, inks and toners, extraction agents, welding & soldering products, explosives, perfumes and fragrances, pharmaceuticals and fuels. This substance has an industrial use resulting in manufacture of another substance (use of intermediates).

This substance is used in the following areas: mining, agriculture, forestry and fishing, formulation of mixtures and/or re-packaging, building & construction work, health services, municipal supply (e.g. electricity, steam, gas, water) and sewage treatment, printing and recorded media reproduction and scientific research and development. This substance is used for the manufacture of: chemicals, mineral products (e.g. plasters, cement), pulp, paper and paper products, textile, leather or fur, rubber products, plastic products, food products, wood and wood products, metals, fabricated metal products, furniture, electrical, electronic and optical equipment and machinery and vehicles.

Release to the environment of this substance can occur from industrial use: in processing aids at industrial sites, manufacturing of the substance, of substances in closed systems with minimal release, formulation of mixtures, formulation in materials, as an intermediate step in further manufacturing of another substance (use of intermediates), as processing aid, industrial abrasion processing with low release rate (e.g. cutting of textile, cutting, machining or grinding of metal), industrial abrasion processing with high release rate (e.g. sanding operations or paint stripping by shot-blasting), in the production of articles, as processing aid and for thermoplastic manufacture. Other release to the environment of this substance is likely to occur from: indoor use (e.g. machine wash liquids/detergents, automotive care products, paints and coating or adhesives, fragrances and air fresheners), outdoor use, 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), outdoor use in long-life materials with high release rate (e.g. tyres, treated wooden products, treated textile and fabric, brake pads in trucks or cars, sanding of buildings (bridges, facades) or vehicles (ships)), indoor use in long-life materials with high release rate (e.g. release from fabrics, textiles during washing, removal of indoor paints), outdoor use in long-life materials with low release rate (e.g. metal, wooden and plastic construction and building materials), indoor use in close systems with minimal release (e.g. cooling liquids in refrigerators, oil-based electric heaters) and outdoor use in close systems with minimal release (e.g. hydraulic liquids in automotive suspension, lubricants in motor oil and break fluids).

This substance can be found in complex articles, with no release intended: vehicles, machinery, mechanical appliances and electrical/electronic products (e.g. computers, cameras, lamps, refrigerators, washing machines) and electrical batteries and accumulators. This substance can be found in products with material based on: stone, plaster, cement, glass or ceramic (e.g. dishes, pots/pans, food storage containers, construction and isolation material), wood (e.g. floors, furniture, toys), plastic (e.g. food packaging and storage, toys, mobile phones), paper (e.g. tissues, feminine hygiene products, nappies, books, magazines, wallpaper), leather (e.g. gloves, shoes, purses, furniture), rubber (e.g. tyres, shoes, toys), fabrics, textiles and apparel (e.g. clothing, mattress, curtains or carpets, textile toys) and metal (e.g. cutlery, pots, toys, jewellery). This substance is intended to be released from scented: clothes, toys, paper products, CDs and eraser. This substance is intended to be released from: packaging material for metal parts (releasing grease/corrosion inhibitors).

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.



about INFOCARD - Last updated: 16/11/2017

The Brief Profile summarizes the non-confidential data on substances as it is held in the databases of the European Chemicals Agency (ECHA), including data provided by third parties. The Brief Profile is automatically generated; note that it does not currently distinguish between harmonised classification and minimum classification; information requirements under different legislative frameworks may therefore not be fully up to date or complete. For accuracy reasons, substance manufacturers and importers have the responsibility to consult official sources, e.g. the electronic edition of the Official Journal of the European Union. This Brief Profile is covered by the ECHA Legal Notice.

Calcium carbonate

Brief Profile - Last updated: 05/02/2018



Substance Description

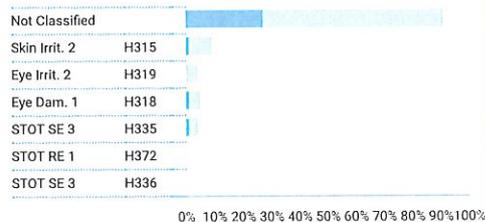
Substance identity		
	EC / List name: Calcium carbonate IUPAC name: calcium carbonate Other names:	SMILES: <chem>[Ca+].[O-]C([O-])=O</chem> InChI: InChI=1S/CH2O3.Ca/c2-1(3)4;/h;(H2,2,3,4)/q;+2/p-2 AuxInfo=1/1/N:2,3,4,5;1/E:(2,3,4);/rA:5Ca+2COO-O-/rB;;d2;s2;s2;/rC:5.2924-.0044,0;5.2924,1.5411,0;3.9601,-.7684,0;6.6295,-.7684,0;
	EC / List no.: 207-439-9 CAS no.: 471-34-1, 7440-70-2 Index number: Molecular formula: CCaO3	Type of substance: Mono constituent substance Origin: Organic, Inorganic Registered compositions: 55 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 classification provided by companies to ECHA in REACH registrations this substance causes serious eye damage, causes skin irritation and may cause respiratory irritation.

Breakdown of all 2657 C&L notifications submitted to ECHA



- 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 175 active registrations under REACH, 1 Joint Submission(s) and 1 Individual Submission(s).

Evaluation

Dossier Evaluation: Registration dossiers submitted to ECHA for this substance have been evaluated under REACH.

Substance Evaluation:

Authorisation

Candidate List:

Annex XIV (Authorisation List):

Restriction

Annex XVII (Restriction List):

Classification Labelling & Packaging (CLP)

Harmonised C&L:

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:

Other names

IUPAC names

-
- 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecan-1-oate
- 2-Ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate
- 2-ethylhexyl 2-(((2-ethylhexyl)oxy)-2-oxoethyl)sulfanyl)dioctylstannyl)sulfanyl)acetate
- 8-Oxa-3,5-dithia-4-stannatetradecanoic acid, 10-ethyl-4,4-dioctyl-7-oxo-, 2-ethylhexyl ester
- Di-n-octylzinn-bis-(2-ethylhexylthioglykolat)
- Dioctyltinbis(2-ethylhexyl mercaptoacetate)
- DOTE, DOT(EHMA)2, Dioctyltin bis(2-ethylhexyl mercaptoacetate)

Regulatory processes names

- 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate
- 2-Ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)
- 8-Oxa-3,5-dithia-4-stannatetradecanoic acid, 10-ethyl-4,4-dioctyl-7-oxo-, 2-ethylhexyl ester

Trade names

- 10-éthyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatétradecanoate de 2-éthylhexyle
- 2-Ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate
- 8-Oxa-3,5-dithia-4-stannatetradecanoic acid, 10-ethyl-4,4-dioctyl-7-oxo-, 2-ethylhexyl ester
- Thermolite 890

Other names

- DOTE

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	Type of Study provided	Summaries
1 study submitted 1 study processed		1 summary submitted 1 summary processed
C Physical state at 20°C and 1013 hPa Liquid (100%) [1]	Studies with data Key study Supporting study Weight of evidence Other	Physical state at 20°C and 1013 hPa Liquid (100%)
C Form Not specified (100%) [1]		
C Odour Other (100%) [1]		
C Substance type Organometallic (100%) [1]		
	Data waiving no waivers	

Melting/freezing point

Study results	Type of Study provided	Summaries
3 studies submitted 0 studies processed		1 summary submitted 1 summary processed
A No automatically processable data submitted	Studies with data Key study Supporting study Weight of evidence Other	Melting / freezing point at 101 325 Pa -39 °C
	Data waiving Not feasible Sci. unjustified Exposure cons. Other	

Boiling point

Study results	Type of Study provided	Summaries
2 studies submitted 0 studies processed		1 summary submitted 1 summary processed
A No automatically processable data submitted	Studies with data Key study Supporting study Weight of evidence Other	Boiling point at 101 325 Pa 275 °C
	Data waiving no waivers	

Density

Study results	Type of Study provided	Summaries
4 studies submitted 0 studies processed		1 summary submitted 1 summary processed
A No automatically processable data submitted	Studies with data Key study Supporting study Weight of evidence Other	Relative density at 20°C 1.07
	Data waiving no waivers	

Explosiveness

Study results: 2 studies submitted, 0 studies processed

Type of Study provided: **C** Summaries, 3 summaries submitted, 3 summaries processed

⚠ No automatically processable data submitted

Studies with data	⚠	📄	📊	📈	Data waiving
Key study					Not feasible
Supporting study					Sci. unjustified
Weight of evidence					Exposure cons.
Other					Other

Explosiveness: Non-explosive (100%)

Oxidising

Study results: 2 studies submitted, 0 studies processed

Type of Study provided: **C** Summaries, 3 summaries submitted, 3 summaries processed

⚠ No automatically processable data submitted

Studies with data	⚠	📄	📊	📈	Data waiving
Key study					Not feasible
Supporting study					Sci. unjustified
Weight of evidence					Exposure cons.
Other					Other

Oxidising: Non oxidising (100%)

Oxidation reduction potential

⚠ Data not provided by the registrant

pH

⚠ Data not provided by the registrant

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
Key study					Not feasible
Supporting study					Sci. unjustified
Weight of evidence					Exposure cons.
Other					Other

⚠ 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
Key study					Not feasible
Supporting study					Sci. unjustified
Weight of evidence					Exposure cons.
Other					Other

⚠ 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

⚠ Data not provided by the registrant

Hydrolysis

Study results: 2 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
Key study					Not feasible
Supporting study					Sci. unjustified
Weight of evidence					Exposure cons.
Other					Other

⚠ No data available

Phototransformation in water

⚠ Data not provided by the registrant

Phototransformation in soil

⚠ Data not provided by the registrant

Biodegradation in water - screening tests

Study results

2 studies submitted
1 study processed

Type of Study provided

C Summaries

3 summaries submitted
1 summary processed

C Interpretation of results
Readily biodegradable (100%) [1]

Studies with data	⚠	📄	📊	📑
Key study	1			
Supporting study				
Weight of evidence				
Other				

Data waiving

Not feasible	
Sci. unjustified	
Exposure cons.	
Other	1

Biodegradation In water
Readily biodegradable (100%)

Biodegradation in water & sediment - simulation tests

Study results

0 studies submitted
0 studies processed

Type of Study provided

Summaries

1 summary submitted
0 summaries processed

⚠ Study data not processed for brief profile

Studies with data	⚠	📄	📊	📑
Key study				
Supporting study				
Weight of evidence				
Other				

Data waiving

no waivers

⚠ No automatically processable data submitted

Biodegradation in soil

Study results

1 study submitted
0 studies processed

Type of Study provided

Summaries

1 summary submitted
0 summaries processed

⚠ Study data not processed for brief profile

Studies with data	⚠	📄	📊	📑
Key study				
Supporting study				
Weight of evidence				
Other				

Data waiving

Not feasible	1
Sci. unjustified	
Exposure cons.	
Other	

⚠ No automatically processable data submitted

Bioaccumulation: aquatic / sediment

Study results

1 study submitted
0 studies processed

Type of Study provided

Summaries

1 summary submitted
0 summaries processed

⚠ Study data not processed for brief profile

Studies with data	⚠	📄	📊	📑
Key study				
Supporting study				
Weight of evidence				
Other				

Data waiving

Not feasible	
Sci. unjustified	
Exposure cons.	
Other	1

⚠ No automatically processable data submitted

Bioaccumulation: terrestrial

⚠ Data not provided by the registrant

Adsorption/desorption

Study results

2 studies submitted
0 studies processed

Type of Study provided

Summaries

1 summary submitted
0 summaries processed

⚠ No automatically processable data submitted

Studies with data	⚠	📄	📊	📑
Key study				
Supporting study				
Weight of evidence				
Other				

Data waiving

Not feasible	2
Sci. unjustified	
Exposure cons.	
Other	

⚠ No automatically processable data submitted

Henry's law constant (H)

⚠ 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

3 summaries submitted
3 summaries 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		Hazard for Air	
Freshwater	No hazard identified (3)	Air	No hazard identified (3)
Intermittent releases (freshwater)	No hazard identified (3)	Hazard for Terrestrial Organism	
Marine water	No hazard identified (3)	Soil	No hazard identified (3)
Intermittent releases (marine water)	No hazard identified (3)	Hazard for Predators	
Sewage treatment plant (STP)	100 mg/L (3)	Secondary poisoning	No potential for bioaccumulation (3)
Sediment (freshwater)	No hazard identified (3)		
Sediment (marine water)	No hazard identified (3)		

Short-term toxicity to fish

Study results 3 studies submitted
0 studies processed

Type of Study provided

Summaries 3 summaries submitted
0 summaries processed

⚠ No automatically processable data submitted

Studies with data	⚠	📄	📊	📈
Key study	1	2		
Supporting study				
Weight of evidence				
Other				

Data waiving
no waivers

⚠ No automatically processable data submitted

Long-term toxicity to fish

Study results 2 studies submitted
0 studies processed

Type of Study provided

Summaries 2 summaries submitted
0 summaries processed

⚠ No automatically processable data submitted

Studies with data	⚠	📄	📊	📈
Key study				
Supporting study	1			
Weight of evidence				
Other				

Data waiving

Not feasible	
Sci. unjustified	1
Exposure cons.	
Other	

⚠ No automatically processable data submitted

Short-term toxicity to aquatic invertebrates

Study results 3 studies submitted
0 studies processed

Type of Study provided

Summaries 3 summaries submitted
0 summaries processed

⚠ No automatically processable data submitted

Studies with data	⚠	📄	📊	📈
Key study	1	2		
Supporting study				
Weight of evidence				
Other				

Data waiving
no waivers

⚠ No automatically processable data submitted

Long-term toxicity to aquatic invertebrates

Study results 1 study submitted
0 studies processed

Type of Study provided

Summaries 2 summaries submitted
0 summaries processed

⚠ No automatically processable data submitted

Studies with data	⚠	📄	📊	📈
Key study				
Supporting study				
Weight of evidence				
Other				

Data waiving

Not feasible	
Sci. unjustified	1
Exposure cons.	
Other	

⚠ No automatically processable data submitted

Toxicity to aquatic algae and cyanobacteria

Study results	3 studies submitted 1 study processed	Type of Study provided	Summaries	3 summaries submitted 0 summaries processed																														
P/R Results EC50 (72 h) 14 mg/L [1] NOEC (72 h) 14 mg/L [1] EC10 (72 h) 14 mg/L [1] EC20 (72 h) 14 mg/L [1]		<table border="1"> <tr> <td>Studies with data</td> <td>▲</td> <td>📄</td> <td>📊</td> <td>📑</td> <td>🔍</td> </tr> <tr> <td>Key study</td> <td>2</td> <td>1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Supporting study</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Weight of evidence</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Studies with data	▲	📄	📊	📑	🔍	Key study	2	1				Supporting study						Weight of evidence						Other						Data waiving no waivers	▲ No automatically processable data submitted
Studies with data	▲	📄	📊	📑	🔍																													
Key study	2	1																																
Supporting study																																		
Weight of evidence																																		
Other																																		

Toxicity to aquatic plants other than algae

▲ Data not provided by the registrant

Toxicity to microorganisms

Study results	3 studies submitted 1 study processed	Type of Study provided	Summaries	3 summaries submitted 0 summaries processed																														
P/R Results EC50 (3 h) 1 g/L [1] NOEC (3 h) 1 g/L [1]		<table border="1"> <tr> <td>Studies with data</td> <td>▲</td> <td>📄</td> <td>📊</td> <td>📑</td> <td>🔍</td> </tr> <tr> <td>Key study</td> <td>1</td> <td>2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Supporting study</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Weight of evidence</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Studies with data	▲	📄	📊	📑	🔍	Key study	1	2				Supporting study						Weight of evidence						Other						Data waiving no waivers	▲ No automatically processable data submitted
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Key study	1	2																																
Supporting study																																		
Weight of evidence																																		
Other																																		

Sediment toxicity

Study results	1 study submitted 0 studies processed	Type of Study provided	Summaries	2 summaries submitted 0 summaries processed																														
▲ No automatically processable data submitted		<table border="1"> <tr> <td>Studies with data</td> <td>▲</td> <td>📄</td> <td>📊</td> <td>📑</td> <td>🔍</td> </tr> <tr> <td>Key study</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Supporting study</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Weight of evidence</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Studies with data	▲	📄	📊	📑	🔍	Key study						Supporting study						Weight of evidence						Other						Data waiving Not feasible Sci. unjustified 1 Exposure cons. Other	▲ No automatically processable data submitted
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Key study																																		
Supporting study																																		
Weight of evidence																																		
Other																																		

Endocrine disrupter testing in aquatic vertebrates – in vivo

▲ Data not provided by the registrant

Toxicity to terrestrial macroorganisms except arthropods

Study results	3 studies submitted 1 study processed	Type of Study provided	Summaries	2 summaries submitted 0 summaries processed																														
P/R Results NOEC (14 days) 1 g/kg soil dw [1] LC50 (14 days) 1 g/kg soil dw [1]		<table border="1"> <tr> <td>Studies with data</td> <td>▲</td> <td>📄</td> <td>📊</td> <td>📑</td> <td>🔍</td> </tr> <tr> <td>Key study</td> <td>1</td> <td>1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Supporting study</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Weight of evidence</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Studies with data	▲	📄	📊	📑	🔍	Key study	1	1				Supporting study						Weight of evidence						Other						Data waiving Not feasible Sci. unjustified 1 Exposure cons. Other	▲ No automatically processable data submitted
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Key study	1	1																																
Supporting study																																		
Weight of evidence																																		
Other																																		

Toxicity to terrestrial arthropods

Study results	2 studies submitted 0 studies processed	Type of Study provided	Summaries	2 summaries submitted 0 summaries processed																														
▲ No automatically processable data submitted		<table border="1"> <tr> <td>Studies with data</td> <td>▲</td> <td>📄</td> <td>📊</td> <td>📑</td> <td>🔍</td> </tr> <tr> <td>Key study</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Supporting study</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Weight of evidence</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Studies with data	▲	📄	📊	📑	🔍	Key study						Supporting study						Weight of evidence						Other						Data waiving Not feasible Sci. unjustified 2 Exposure cons. Other	▲ No automatically processable data submitted
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Key study																																		
Supporting study																																		
Weight of evidence																																		
Other																																		

Toxicity to terrestrial plants				
Study results	3 studies submitted 1 study processed	Type of Study provided	Summaries	2 summaries submitted 0 summaries processed
P/R Results NOEC (21 days) 1 g/kg soil dw [1] EC50 (21 days) 1 g/kg soil dw [2]		Studies with data Key study: 1 1 Supporting study: Weight of evidence: Other:	Data waiving Not feasible: Sci. unjustified: 1 Exposure cons.: Other:	⚠ No automatically processable data submitted

Toxicity to soil microorganisms				
Study results	2 studies submitted 1 study processed	Type of Study provided	Summaries	2 summaries submitted 0 summaries processed
P/R Results NOEC (28 days) 1 g/kg soil dw [1] EC50 (28 days) 1 g/kg soil dw [1]		Studies with data Key study: 1 1 Supporting study: Weight of evidence: Other:	Data waiving no waivers	⚠ No automatically processable data submitted

Toxicity to birds				
Study results	3 studies submitted 0 studies processed	Type of Study provided	Summaries	2 summaries submitted 0 summaries processed
⚠ No automatically processable data submitted		Studies with data Key study: Supporting study: 1 1 Weight of evidence: Other:	Data waiving Not feasible: Sci. unjustified: 1 Exposure cons.: Other:	⚠ No automatically processable data submitted

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

3 summaries submitted
3 summaries 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

Data for the GENERAL POPULATION

INHALATION Exposure Threshold Most sensitive study

INHALATION Exposure Threshold Most sensitive study

Long-term: No hazard identified
Acute /short term: No hazard identified

Long-term: No hazard identified
Acute /short term: No hazard identified

Long-term: (DNEL) 6.36 mg/m³ repeated dose toxicity
Acute /short term: No hazard identified

Long-term: (DNEL) 1.06 mg/m³ repeated dose toxicity
Acute /short term: No hazard identified

DERMAL Exposure Threshold Most sensitive study

DERMAL Exposure Threshold Most sensitive study

Long-term: No hazard identified
Acute /short term: No hazard identified

Long-term: No hazard identified
Acute /short term: No hazard identified

Long-term: No hazard identified
Acute /short term: No hazard identified

Long-term: No hazard identified
Acute /short term: No hazard identified

EYE Exposure

ORAL Exposure Threshold Most sensitive study

No hazard identified

Long-term: -
Acute /short term: -

EYE Exposure

No hazard identified

Toxicokinetics, metabolism, and distribution

Study results

Type of Study provided

Summaries

3 summaries submitted
0 summaries processed

Study data: basic toxicokinetics 3 studies submitted
0 studies processed

Study data: basic toxicokinetics

⚠ No automatically processable data submitted

⚠ Study data not processed for brief profile

Studies with data	⚠	📄	📊	📌	Data waiving
Key study					no waivers
Supporting study	1				
Weight of evidence	2				
Other					

Study data: dermal absorption 0 studies submitted
0 studies processed

Study data: dermal absorption

⚠ Study data not processed for brief profile

Studies with data	⚠	📄	📊	📌	Data waiving
Key study					no waivers
Supporting study					
Weight of evidence					
Other					

Acute toxicity		Type of Study provided		M/C	Summaries	3 summaries submitted 3 summaries processed
Study results		oral				
oral		4 studies submitted 1 study processed				
P/R Results		Studies with data		Data waiving		
LD50 2 000 mg/kg bw (rat) [1]		Key study		no waivers		
LD0 2 000 mg/kg bw (rat) [1]		Supporting study				
M/C Interpretations of results		Weight of evidence				
Not classified [1]		Other				
inhalation		inhalation				
3 studies submitted 1 study processed		Studies with data		Data waiving		
P/R Results		Key study		no waivers		
LC50 (4 h) 3 mg/L air (rat) [1]		Supporting study				
M/C Interpretations of results		Weight of evidence				
Not classified [1]		Other				
dermal		dermal				
3 studies submitted 1 study processed		Studies with data		Data waiving		
P/R Results		Key study		no waivers		
LD50 2 000 mg/kg bw (rat) [1]		Supporting study				
M/C Interpretations of results		Weight of evidence				
Not classified [1]		Other				
other routes		other routes				
0 studies submitted 0 studies processed		Studies with data		Data waiving		
⚠ No data available		Key study		no waivers		
		Supporting study				
		Weight of evidence				
		Other				

Irritation / corrosion		Type of Study provided		M/C	Summaries	3 summaries submitted 3 summaries processed
Study results		Study data: skin				
Study data: skin		4 studies submitted 0 studies processed				
⚠ Study data not processed for brief profile		Studies with data		Data waiving		
		Key study		Not feasible		
		Supporting study		Sci. unjustified		
		Weight of evidence		Exposure cons.		
		Other		Other 1		
Study data: eye		Study data: eye				
Study data: eye		4 studies submitted 0 studies processed				
⚠ Study data not processed for brief profile		Studies with data		Data waiving		
		Key study		Not feasible		
		Supporting study		Sci. unjustified 1		
		Weight of evidence		Exposure cons.		
		Other		Other		
				Skin		
				No adverse effect observed (not irritating)		
				Eye		
				No adverse effect observed (not irritating)		
				Respiratory		
				No study available		

Sensitisation

Study results

Type of Study provided

M/C Summaries

3 summaries submitted
3 summaries processed

Study data: skin 1 studies submitted
0 studies processed

Study data: skin

⚠ Study data not processed for brief profile

Studies with data	▲	📄	📅	📊	⚠	Data waiving
Key study	1	2				Not feasible
Supporting study						Sci. unjustified 1
Weight of evidence						Exposure cons.
Other						Other

Skin sensitisation

No adverse effect observed (not sensitising)

Respiratory sensitisation

No study available

Study data: respiratory 0 studies submitted
0 studies processed

Study data: respiratory

⚠ Study data not processed for brief profile

Studies with data	▲	📄	📅	📊	⚠	Data waiving
Key study						no waivers
Supporting study						
Weight of evidence						
Other						

Repeated dose toxicity

Study results

Type of Study provided

M/C Summaries

3 summaries submitted
3 summaries processed

Study data: oral 9 studies submitted
1 study processed

Study data: oral

P/R Results

NOAEL (rat): 1 000 mg/kg bw/day [1]

Studies with data	▲	📄	📅	📊	⚠	Data waiving
Key study	1	2				Not feasible
Supporting study	3	2				Sci. unjustified 1
Weight of evidence						Exposure cons.
Other						Other

Oral route - systemic effects:

No adverse effect observed NOAEL 1 000 mg/kg bw/day (subchronic, rat)

Inhalation route - systemic effects:

No adverse effect observed NOAEC 399 mg/m³ (subchronic, rat)

Inhalation route - local effects:

Adverse effect observed NOAEC 212 mg/m³ (subchronic, rat)

Study data: inhalation 8 studies submitted
1 study processed

Study data: inhalation

P/R Results

NOAEC (rat): 212 mg/m³ air [1]

NOEC (rat): 399 mg/m³ air [1]

Studies with data	▲	📄	📅	📊	⚠	Data waiving
Key study	1	2				Not feasible
Supporting study	2	2				Sci. unjustified
Weight of evidence						Exposure cons.
Other						Other 1

Study data: dermal 3 studies submitted
0 studies processed

Study data: dermal

⚠ No automatically processable data submitted

Studies with data	▲	📄	📅	📊	⚠	Data waiving
Key study						Not feasible
Supporting study						Sci. unjustified 3
Weight of evidence						Exposure cons.
Other						Other

Genetic toxicity

Study results **Type of Study provided** M/C **Summaries** 3 summaries submitted
3 summaries processed

Study data: in vitro 9 studies submitted
0 studies processed

⚠ Study data not processed for brief profile

Studies with data	⚠	📄	📊	⚠	Data waiving
Key study	3	6			no waivers
Supporting study					
Weight of evidence					
Other					

Toxicity - InVitro
No adverse effect observed (negative)

Toxicity - InVivo
No study available

Study data: in vivo 0 studies submitted
0 studies processed

⚠ Study data not processed for brief profile

Studies with data	⚠	📄	📊	⚠	Data waiving
Key study					no waivers
Supporting study					
Weight of evidence					
Other					

Carcinogenicity

Study results **Type of Study provided** **Summaries** 2 summaries submitted
0 summaries processed

Study data: in vitro 1 study submitted
0 studies processed

⚠ Study data not processed for brief profile

Studies with data	⚠	📄	📊	⚠	Data waiving
Key study					Not feasible
Supporting study					Sci. unjustified 1
Weight of evidence					Exposure cons.
Other					Other

⚠ No automatically processable data submitted

Toxicity to reproduction

Study results **Type of Study provided** **Summaries** 3 summaries submitted
0 summaries processed

Study data: in vitro 4 studies submitted
0 studies processed

⚠ Study data not processed for brief profile

Studies with data	⚠	📄	📊	⚠	Data waiving
Key study	1	2			Not feasible
Supporting study					Sci. unjustified 1
Weight of evidence					Exposure cons.
Other					Other

⚠ No automatically processable data submitted

Study data: developmental 7 studies submitted
0 studies processed

⚠ Study data not processed for brief profile

Studies with data	⚠	📄	📊	⚠	Data waiving
Key study	1	2			Not feasible
Supporting study	1	2			Sci. unjustified 1
Weight of evidence					Exposure cons.
Other					Other

Study data: other studies 1 study submitted
0 studies processed

⚠ Study data not processed for brief profile

Studies with data	⚠	📄	📊	⚠	Data waiving
Key study					no waivers
Supporting study	1				
Weight of evidence					
Other					

Neurotoxicity

⚠ Data not provided by the registrant

Immunotoxicity

⚠ Data not provided by the registrant

Endocrine disruptor mammalian screening - in vivo

⚠ Data not provided by the registrant

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