SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and Regulation (EC) No. 1272/2008

SDS # : A-10038

Toner - Black

Issuing Date 06-10-2013 **Revision date** 09-20-2025 **Revision Number** 1

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

1.1. Product identifier

Product Name **Toner** for WorkCentre 3615, Phaser 3610, WorkCentre 3655X, WorkCentre 3655S, WorkCentre 3655iS, WorkCentre 3655iX

Part no. 106R02720, 106R02721, 106R02722, 106R02723, 106R02724, 106R02731, 106R02732, 106R02736, 106R02737, 106R02738, 106R02739, 106R02740, 106R02741, 106R02742

Other means of identification

Pure substance/mixture Mixture

Colour Black

Contains Resin { FXC56 spec# 91-0991} ; Polyester resin { FXC42 Spec# 91-0990}

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

Recommended use Xerographic printing

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier

Xerox Europe Limited
Xerox Technology Park
Dublin Road
Dundalk
Co. Louth
Ireland

For further information, please contact

Contact Point Manager, Environment, Health, Safety& Sustainability

E-mail address ehs-europe@xerox.com

Non-Emergency Telephone Number +353 429387410

For the most current document https://safetysheets.business.xerox.com

1.4. Emergency telephone number

Emergency Telephone 01 809 166 (8am-10pm 7 days a week)

Emergency Telephone - §45 - (EC)1272/2008	
Europe	**112**

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

2.2. Label elements

Contains Resin { FXC56 spec# 91-0991} ; Polyester resin { FXC42 Spec# 91-0990}
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

Hazard statements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP].
EUH210 - Safety data sheet available on request.

2.3. Other hazards

Other hazards May form explosible dust-air mixture if dispersed.

PBT & vPvB The components in this formulation do not meet the criteria for classification as PBT or vPvB.

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Chemical name	Weight-%	CAS No.	**EC No (EU Index No)**	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Polyester Resin	70-80	Proprietary	Not Listed	--	--
Paraffin wax and Hydrocarbon wax fumes	<15	8002-74-2	232-315-6	--	--
Siloxanes and Silicones, di-Me, reaction products with silica	<10	67762-90-7	Listed	--	--
Carbon black { Nipex35}	<5	1333-86-4	215-609-9	--	01-2119384822-32-0065
Titanium dioxide	<1	13463-67-7	236-675-5	--	--

Note

"--" indicates no classification or hazard statements apply.
Components marked as "Not Listed" are exempt from registration.
Where no REACH registration number is listed, it is considered confidential to the Only Representative.

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Paraffin wax and Hydrocarbon wax fumes	5000	3600	No data available	No data available	No data available
Carbon black { Nipex35}	10000	2000	0.0046	No data available	No data available
Titanium dioxide	2000	No data available	5.09	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59).

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice For external use only. Get medical attention if irritation or other symptoms occur. Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.

Skin contact Wash skin with soap and water.

Ingestion Rinse mouth.

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

Symptoms Dust irritates eyes and air passages.

Effects of Exposure No information available.

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 Use water spray or fog; do not use straight streams.

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	Fine dust dispersed in air may ignite.
Hazardous combustion products	Hazardous decomposition products due to incomplete combustion. Carbon oxides. Nitrogen oxides (NOx).

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	In case of fire: Wear self-contained breathing apparatus. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid generation of dust. Ensure adequate ventilation.
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. Prevent dust cloud.
Methods for cleaning up	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. Avoid generation of dust.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep container tightly closed in a dry and well-ventilated place.
Storage class (TRGS 510)	LGK 11.

7.3. Specific end use(s)

Specific use(s)

Xerographic printing.

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Xerox Exposure Limit 2.5 mg/m³ (total dust)
Xerox Exposure Limit 0.4 mg/m³ (respirable dust)

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Paraffin wax and Hydrocarbon wax fumes	-	-	TWA: 2 mg/m³	-	TWA: 2 mg/m³ STEL: 6 mg/m³
Carbon black { Nipex35}	-	-	TWA: 3 mg/m³	-	TWA: 3.5 mg/m³ STEL: 7 mg/m³
Titanium dioxide	-	TWA: 5 mg/m³ STEL 10 mg/m³	TWA: 10 mg/m³	TWA: 10.0 mg/m³	TWA: 10 mg/m³ TWA: 4 mg/m³
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Paraffin wax and Hydrocarbon wax fumes	-	-	TWA: 2 mg/m³ STEL: 4 mg/m³	TWA: 2 mg/m³	TWA: 1 mg/m³
Carbon black { Nipex35}	-	TWA: 2.0 mg/m³	TWA: 3.5 mg/m³ STEL: 7 mg/m³	TWA: 3 mg/m³	TWA: 3.5 mg/m³ STEL: 7 mg/m³
Titanium dioxide	-	-	TWA: 6 mg/m³ STEL: 12 mg/m³	TWA: 5 mg/m³	-
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Paraffin wax and Hydrocarbon wax fumes	TWA: 2 mg/m³	-	-	TWA: 2 mg/m³ STEL: 6 mg/m³	-
Carbon black { Nipex35}	TWA: 3.5 mg/m³	-	-	TWA: 3.5 mg/m³ STEL: 7 mg/m³	TWA: 3 mg/m³
Titanium dioxide	TWA: 10 mg/m³	TWA: 1.25 mg/m³ TWA: 10 mg/m³	TWA: 0.3 mg/m³ Peak: 2.4 mg/m³	TWA: 10 mg/m³ TWA: 5 mg/m³	-
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Paraffin wax and Hydrocarbon wax fumes	TWA: 2 mg/m³ STEL: 6 mg/m³	-	TWA: 2 mg/m³	-	-
Carbon black { Nipex35}	TWA: 3 mg/m³ STEL: 15 mg/m³	-	TWA: 3 mg/m³	-	-
Titanium dioxide	TWA: 10 mg/m³ TWA: 4 mg/m³ STEL: 30 mg/m³ STEL: 12 mg/m³	-	TWA: 10 mg/m³	TWA: 10 mg/m³	TWA: 5 mg/m³
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Paraffin wax and Hydrocarbon wax fumes	-	-	-	TWA: 2 mg/m³ STEL: 4 mg/m³	TWA: 2 mg/m³
Carbon black { Nipex35}	-	-	-	TWA: 3.5 mg/m³ STEL: 7 mg/m³	TWA: 4 mg/m³
Titanium dioxide	-	-	-	TWA: 5 mg/m³ STEL: 10 mg/m³	TWA: 10 mg/m³ STEL: 30 mg/m³
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Paraffin wax and Hydrocarbon wax fumes	TWA: 2 mg/m³	TWA: 2 mg/m³ STEL: 6 mg/m³	TWA: 2 mg/m³ Ceiling: 6 mg/m³	-	TWA: 2 mg/m³
Carbon black { Nipex35}	TWA: 3 mg/m³	-	TWA: 2 mg/m³ TWA: 10 mg/m³	-	TWA: 3.5 mg/m³

			Ceiling: 10 mg/m³		
Titanium dioxide	TWA: 10 mg/m³	TWA: 10 mg/m³ STEL: 15 mg/m³	TWA: 5 mg/m³	-	TWA: 10 mg/m³

Chemical name	Sweden	Switzerland	United Kingdom
Paraffin wax and Hydrocarbon wax fumes	-	TWA: 2 mg/m³	TWA: 2 mg/m³ STEL: 6 mg/m³
Carbon black { Nipex35}	NGV: 3 mg/m³	-	TWA: 3.5 mg/m³ STEL: 7 mg/m³
Titanium dioxide	NGV: 5 mg/m³	TWA: 3 mg/m³ TWA: 10 mg/m³	TWA: 10 mg/m³ TWA: 4 mg/m³ STEL: 30 mg/m³ STEL: 12 mg/m³

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

Note 1: Details about BEL values can be found in Annex 2 of the Austrian Ordinance on Health Monitoring in the Workplace.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
Carbon black { Nipex35}	-	-	1 mg/m³ [4] [6]

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

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
Carbon black { Nipex35}	-	-	0.06 mg/m³ [4] [6]

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

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Carbon black { Nipex35}	50 mg/L	-	-	-	-

8.2. Exposure controls

Engineering controls None under normal use conditions.

Personal protective equipment

Eye/face protection No special protective equipment required.

Hand protection	No special protective equipment required.
Skin and body protection	No special protective equipment required.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
Thermal hazards	None under normal processing.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls	Do not allow into any sewer, on the ground or into any body of water.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Appearance	Powder
Colour	Black
Odour	Faint.
Odour threshold	Not applicable

Property	**Values**	**Remarks • Method**
Melting point / freezing point	Not applicable	None known
Initial boiling point and boiling range	Not applicable	None known
Flammability	Not flammable	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	Not applicable	
Lower flammability or explosive limits	Not applicable	
Flash point	Not applicable	None known
Autoignition temperature	Not applicable	None known
Decomposition temperature	Not applicable	None known
pH	Not applicable	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	Not applicable	None known
Dynamic viscosity	Not applicable	None known
Water solubility	negligible	None known
Solubility(ies)	No data available	None known
Partition coefficient	Not applicable	None known
Vapour pressure	not applicable	None known
Relative density	1 - 2	None known
Bulk density	Not applicable	
Liquid Density	Not applicable	
Relative vapour density	not applicable	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

Softening point	49 - 60 °C / 120 - 140 °F
VOC content	None

9.2.1. Information with regards to physical hazard classes

Explosive properties	Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stability Stable under normal conditions.

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.

Hazardous polymerisation Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Conditions to avoid Generation/formation of dust.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None under normal use.

SECTION 11: Toxicological information

Note: The toxicity data noted below is based on the test results of similar reprographic materials.

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
Information on likely routes of exposure

Inhalation No known effects under normal use conditions.

Eye contact No hazard from product as supplied.

Skin contact No hazard from product as supplied.

Ingestion No hazard from product as supplied.

Symptoms related to the physical, chemical and toxicological characteristics
Symptoms None known.

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

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

Numerical measures of toxicity

> 5 g/kg (rat) > 5 g/kg (rabbit) > 5 mg/L (rat, 4 hr)

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Paraffin wax and Hydrocarbon wax fumes	> 5000 mg/kg (Rat)	> 3600 mg/kg (Rabbit)	-
Carbon black { Nipex35}	> 10000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 4.6 mg/m^3 (Rat) 4 h
Titanium dioxide	> 2000 mg/kg (Rat)	-	> 5.09 mg/L (Rat) 4 h

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity Not mutagenic in AMES Test.

Carcinogenicity The IARC (International Agency for Research on Cancer) has listed carbon black as "possibly carcinogenic to humans". However, Xerox has concluded that the presence of carbon black in this mixture does not present a health hazard. The IARC classification is based on studies evaluating pure, "free" carbon black. In contrast, toner is a formulation composed of specially prepared polymer and a small amount of carbon black (or other pigment). In the process of making toner, the small amount of carbon black becomes encapsulated within a matrix. Xeroxhas performed extensive testing of toner, including a chronic bioassay (test for potential carcinogenicity). Exposure to toner did not produce evidence of cancer in exposed animals. The results were submitted to regulatory agencies and published extensively.
The IARC (International Agency for Research on Cancer) has listed titanium dioxide as “possibly carcinogenic to humans”. However, Xerox has concluded that the presence of titanium dioxide in this mixture does not present a health hazard. The IARC classification is based on studies in rats using high concentrations of pure, unbound TiO2 particles of respirable size. Epidemiological studies do not suggest a carcinogenic effects in humans. In addition, the titanium dioxide in this mixture is encapsulated in a matrix or bound to the surface of the toner.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	European Union
Titanium dioxide	Carc. 2

Reproductive toxicity This product does not contain any known or suspected reproductive hazards.

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.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties This mixture does not contain any substance that has endocrine disrupting properties with respect to humans.

11.2.2. Other information

Neurological effects No information available.

Other adverse effects None known.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Not considered to be harmful to aquatic life.

Chronic Aquatic Toxicity On available data, substance is not harmful to aquatic life.

12.2. Persistence and degradability

Persistence and degradability Not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulation Not likely to bioaccumulate.

12.4. Mobility in soil

Mobility in soil The product is insoluble and floats on water.

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
Paraffin wax and Hydrocarbon wax fumes	The substance is not PBT / vPvB
Carbon black { Nipex35}	The substance is not PBT / vPvB
Titanium dioxide	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties This mixture does not contain any substance that has endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

Other adverse effects No information available.

PMT or vPvM properties The product does not contain any substance(s) classified as PMT or vPvM.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused Can be landfilled or incinerated, when in compliance with local regulations.

products

Contaminated packaging	Dispose of contents/containers in accordance with local regulations.
Waste codes / waste designations according to EWC	08 03 18.
Other information	Although toner is not an aquatic toxin, microplastics may be a physical hazard to aquatic life and should not be allowed to enter drains, sewers, or waterways. Do Not Pour Product Down the Drain; Do Not Rinse the Container Before Disposal.

SECTION 14: Transport information

Note: This material is not subject to regulation as a hazardous material for shipping

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	Not applicable
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	Not applicable
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	Not applicable
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	Not applicable
14.6 Special precautions for user Special Provisions	None

ADN

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 hazard Not applicable
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
France
Occupational Illnesses (R-463-3, France)

Chemical name	French RG number
Paraffin wax and Hydrocarbon wax fumes	RG 36
Carbon black { Nipex35}	RG 16,RG 16bis

Switzerland
Ordinance on the Incentive Tax on Volatile Organic Compounds (OVOC) SR 814.018 Not applicable
Storage of Hazardous Material SC Non-hazardous material
WPO (GSchV) SR 814.201; WPA (GSchG) SR 814.20 Not applicable

European Union
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.
Authorisations and/or restrictions on use:
This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

The synthetic polymer microparticles supplied is subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council. Toners and inks are subject to the derogations referred to in Paragraphs 4a and/or 5 (a/b/c) of the Regulation.

Persistent Organic Pollutants
Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009
Not applicable

EU - Plant Protection Products (1107/2009/EC)

Chemical name	EU - Plant Protection Products (1107/2009/EC)
Carbon black { Nipex35}	Plant protection agent

International Inventories
TSCA Complies
DSL/NDSL Complies
EINECS/ELINCS Complies
ENCS Contact supplier for inventory compliance status
IECSC Contact supplier for inventory compliance status
KECL 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
TCSI	Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - 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
TCSI - Taiwan Chemical Substance Inventory

15.2. Chemical safety assessment

Chemical Safety Report	Not applicable A chemical safety assessment according to regulation (EC) No. 1907/2006 is not required

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:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB: Very Persistent and very Bioaccumulative (vPvB) Substances
STOT: Specific Target Organ Toxicity
ATE: Acute Toxicity Estimate
LC50: 50% Lethal Concentration
LD50: 50% Lethal Dose

Legend Section 8: Exposure controls/personal protection

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

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

STOT - repeated exposure	On basis of test data
Acute aquatic toxicity	On basis of test data
Chronic aquatic toxicity	On basis of test data
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	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

Revision date 09-20-2025

Revision Note (M)SDS sections updated. 3. 15. 16.

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

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