

SAFETY DATA SHEET

Version 6.19 Revision Date 05/01/2025 Print Date 05/02/2025

SECTION 1. IDENTIFICATION

1.1 Product identifiers

Product name : Zinc

Product Number : 209988 Brand : Aldrich

Index-No. : 030-001-01-9 CAS-No. : 7440-66-6

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

Identified uses : Laboratory chemicals, Synthesis of substances

Uses advised against : The product is being supplied under the TSCA R&D Exemption

(40 CFR Section 720.36). It is the recipient's responsibility to comply with the requirements of the R&D exemption. The

product may not be used for a non-exempt commercial purpose under TSCA unless appropriate consent is granted in writing by

MilliporeSigma.

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.

3050 SPRUCE ST ST. LOUIS MO 63103 UNITED STATES

Telephone : +1 314 771-5765 Fax : +1 800 325-5052

1.4 Emergency telephone

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-

527-3887 CHEMTREC (International) 24

Hours/day; 7 Days/week

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Combustible dust

Short-term (acute) : Category 1

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aquatic hazard

Long-term (chronic) aquatic hazard

: Category 1

Other hazards

Combustible dust

May form explosible dust-air mixture if dispersed.

GHS label elements

Hazard pictograms

*

Signal Word : Warning

Hazard Statements : May form combustible dust concentrations in air.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**

P273 Avoid release to the environment.

Response:

P391 Collect spillage.

Disposal:

P501 Dispose of contents/ container to an approved

waste disposal plant.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Components

Chemical name	CAS No./Unique ID	Concentration (% w/w)	Trade secret
zinc powder, zinc dust stabilized	7440-66-6*	>= 80 - <= 100	TSC
Zinc oxide	1314-13-2*	>= 3 - <= 7	TSC

^{*} Indicates that the identifier is a CAS No.

TSC- the actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

If inhaled : After inhalation: fresh air.

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In case of skin contact : In case of skin contact: Take off immediately all

contaminated clothing. Rinse skin with water/ shower.

In case of eye contact : After eye contact: rinse out with plenty of water.

Remove contact lenses.

If swallowed : After swallowing: make victim drink water (two

glasses at most). Consult doctor if feeling unwell.

Most important symptoms and effects,

both acute and delayed

: The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in

section 11

Protection of first-aiders : For personal protection see section 8.

Notes to physician : No data available

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing

media

: Water

Foam

Carbon dioxide (CO2)

Dry powder

Unsuitable extinguishing

media

For this substance/mixture no limitations of

extinguishing agents are given.

Specific hazards during

fire fighting

: Combustible.

Risk of dust explosion.

Development of hazardous combustion gases or

vapours possible in the event of fire.

Hazardous combustion

products

: Zinc/zinc oxides

Specific extinguishing

methods

: No data available

Further information : Prevent fire extinguishing water from contaminating

surface water or the ground water system.

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Special protective equipment for fire-fighters

: In the event of fire, wear self-contained breathing

apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Advice for non-emergency personnel:

Avoid inhalation of dusts.

Evacuate the danger area, observe emergency

procedures, consult an expert. Advice for emergency responders: For personal protection see section 8.

Environmental precautions

: Do not let product enter drains.

Methods and materials for containment and cleaning up

: Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7

and 10).

Take up dry. Dispose of properly. Clean up affected

area. Avoid generation of dusts.

SECTION 7. HANDLING AND STORAGE

For precautions see section 2.2.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and

sources of ignition.

Take precautionary measures against static discharge.

Further information on storage conditions

: Tightly closed.

Dry.

Storage class

: 11, Combustible Solids

Recommended storage

temperature

: Recommended storage temperature see product label.

Further information on

storage stability

: Handle and store under inert gas.

Air and moisture sensitive.

Packaging material : Suitable material: LDPE Bottle/Jar

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type	Control	Basis
		(Form of	parameters /	

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		exposure)	Permissible concentration	
Zinc oxide	1314-13-2	TWA (Respirable particulate matter)	2 mg/m3	ACGIH
		STEL (Respirable particulate matter)	10 mg/m3	ACGIH
		TWA (Dust)	5 mg/m3	NIOSH REL
		TWA (Fumes)	5 mg/m3	NIOSH REL
		ST (Fumes)	10 mg/m3	NIOSH REL
		C (Dust)	15 mg/m3	NIOSH REL
		TWA (Fumes)	5 mg/m3	OSHA Z-1
		TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1

Engineering measures : No data available

Personal protective equipment

Respiratory protection : required when dusts are generated.

Our recommendations on filtering respiratory

protection are based on the following standards: DIN

EN 143, DIN 14387 and other accompanying

standards relating to the used respiratory protection

system.

Recommended Filter

type:

: Filter type P1

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Eye protection : Use equipment for eye protection tested and

approved under appropriate government standards

such as NIOSH (US) or EN 166(EU).

Safety glasses

Hygiene measures : Change contaminated clothing. Wash hands after

working with substance.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Dust

Color : dark gray

Odor : odorless

Odor Threshold : Not applicable

рΗ : Not applicable

: 788 °F / 420 °C Melting point/ range

Method: lit.

Boiling point/boiling range : 1665 °F / 907 °C

Method: lit.

Flash point : Not applicable

: No data available Evaporation rate

Flammability (solid, gas) : May form combustible dust concentrations in air.

: No data available Flammability (liquids)

: No data available Burning rate

Self-ignition : does not ignite

Upper explosion limit /

Upper flammability limit

: No data available

: No data available

: No data available

: 1.33 hPa (909 °F / 487 °C)

Lower explosion limit /

Lower flammability limit

Relative vapor density

Relative density : 6.9 (72 °F / 22 °C)

: 7.133 g/cm3 (77 °F / 25 °C) Density

Method: lit.

Solubility(ies)

Vapor pressure

: $0.0001 \text{ g/l slightly soluble } (68 \,^{\circ}\text{F} / 20 \,^{\circ}\text{C})$ Water solubility

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Method: OECD Test Guideline 105

Partition coefficient: n-

octanol/water

: Not applicable for inorganic substances

Autoignition temperature : No data available

Decomposition temperature

: No data available

Viscosity

Viscosity, dynamic : > 500 mPa.s (783 °F / 417 °C)

Viscosity, kinematic : No data available

Flow time : No data available

Explosive properties : No data available

Oxidizing properties : none

Molecular weight : 65.39 g/mol

Particle characteristics

Particle size : No data available

SECTION 10. STABILITY AND REACTIVITY

: The following applies in general to flammable organic Reactivity

> substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion

potential may generally be assumed.

Chemical stability : The product is chemically stable under standard

ambient conditions (room temperature) .

Contains the following

stabilizer(s):

Possibility of hazardous

reactions

: Zinc oxide (<=33 %)

: No data available

Conditions to avoid : no information available

Incompatible materials : No data available

products

Hazardous decomposition : In the event of fire: see section 5

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SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Acute toxicity estimate Oral - 2,500 mg/kg

(Calculation method)

LD50 Oral - Rat - male and female - > 2,000 mg/kg (zinc powder, zinc dust stabilized)

(OECD Test Guideline 401)

Acute toxicity estimate Inhalation - 4 h - 5.41 mg/l - dust/mist(Calculation method)

LC50 Inhalation - Rat - male and female - 4 h - > 5.41 mg/l - dust/mist

(zinc powder, zinc dust stabilized)

(OECD Test Guideline 403)

Acute toxicity estimate Dermal - > 5,000 mg/kg

(Calculation method) Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit (zinc powder, zinc dust stabilized)

Result: No skin irritation - 5 d

Remarks: (in analogy to similar products)

(ECHA)

The value is given in analogy to the following substances: Zinc oxide

Serious eye damage/eye irritation

Eyes - Rabbit (zinc powder, zinc dust stabilized)

Result: No eye irritation - 24 h (OECD Test Guideline 405)

Respiratory or skin sensitization

Maximization Test - Guinea pig (zinc powder, zinc dust stabilized)

Result: negative

(OECD Test Guideline 406)

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: Zinc oxide

Germ cell mutagenicity

Test Type: Ames test

(zinc powder, zinc dust stabilized)

Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: Zinc sulphateTest Type: In vitro

mammalian cell gene mutation test (zinc powder, zinc dust stabilized) Test system: mouse lymphoma cells

Metabolic activation: without metabolic activation

Result: negative

Remarks: (in analogy to similar products)

(ECHA)

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The value is given in analogy to the following substances: zinc chlorideTest Type:

Chromosome aberration test in vitro (zinc powder, zinc dust stabilized)
Test system: Other cell types

Metabolic activation: with and without metabolic activation

Result: negative

Remarks: (in analogy to similar products)

(ECHA)

The value is given in analogy to the following substances: zinc chloride (zinc powder, zinc

dust stabilized)

Test Type: Micronucleus test

Species: Mouse

Cell type: Red blood cells (erythrocytes) Application Route: Intraperitoneal

Result: negative

Remarks: (in analogy to similar products)

(ECHA)

The value is given in analogy to the following substances: Zinc sulphate

Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is

identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is

on OSHA's list of regulated carcinogens.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information

Repeated dose toxicity - Rat - male and female - Oral - 13 Weeks - NOAEL (No observed adverse effect level) - 31.52 mg/kg - LOAEL (Lowest observed adverse effect level) - 53.8 mg/kg

(zinc powder, zinc dust stabilized)

RTECS: ZG8600000

Effects due to ingestion may include:, chills, dry throat, sweet taste, Fever, Cough, Nausea, Vomiting, Weakness, Contact with eyes or skin may cause:, Irritation (zinc powder, zinc dust stabilized)

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. (zinc powder, zinc dust stabilized)

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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

zinc powder, zinc dust stabilized:

Toxicity to fish : LC50 (other fish): 0.439 mg/l

End point: mortality Exposure time: 96 h

Test Type: flow-through test Analytical monitoring: yes

Remarks: (ECHA)

Toxicity to daphnia and

other aquatic invertebrates

: EC50 (Ceriodaphnia dubia (water flea)): 0.155 mg/l

End point: Immobilization Exposure time: 48 h Test Type: static test Analytical monitoring: yes

Method: US-EPA

Toxicity to algae/aquatic

plants

: NOEC (Pseudokirchneriella subcapitata (green algae)):

0.05 mg/l

Exposure time: 3 d Test Type: static test Analytical monitoring: yes

Method: OECD Test Guideline 201

GLP: yes

: 1

M-Factor (Acute aquatic

toxicity)

Toxicity to fish (Chronic

toxicity)

: NOEC (other fish): 0.169 mg/l

End point: mortality Exposure time: 30 d

Test Type: flow-through test Analytical monitoring: yes

Remarks: (ECHA)

Toxicity to daphnia and

other aquatic

invertebrates (Chronic

toxicity)

: NOEC (Daphnia magna (Water flea)): 0.100 mg/l

End point: reproduction rate Exposure time: 3 Weeks Test Type: semi-static test Analytical monitoring: yes

Remarks: (ECHA)

M-Factor (Chronic aquatic: 1

toxicity)

Toxicity to

: NOEC (activated sludge): 0.1 mg/l

microorganisms Exposure time: 4 h

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Test Type: static test Method: ISO 9509

Remarks: (in analogy to similar products)

Zinc oxide:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 2.525 mg/l

> End point: mortality Exposure time: 96 h Test Type: semi-static test Analytical monitoring: yes

Remarks: (ECHA)

Toxicity to daphnia and

other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1 mg/l

End point: Immobilization Exposure time: 48 h Test Type: static test Analytical monitoring: yes

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

: NOEC (Pseudokirchneriella subcapitata (microalgae)):

0.024 mg/l

Exposure time: 72 h Test Type: static test Analytical monitoring: yes

Method: OECD Test Guideline 201

GLP: yes

M-Factor (Acute aquatic

toxicity)

: 1

Toxicity to fish (Chronic

toxicity)

: NOEC (Oncorhynchus mykiss (rainbow trout)): 0.2

mq/l

End point: mortality Exposure time: 30 d

Test Type: flow-through test Analytical monitoring: yes

Method: OECD Test Guideline 215

Remarks: (in analogy to similar products) The value is given in analogy to the following

substances: zinc chloride

Toxicity to daphnia and

other aquatic

invertebrates (Chronic

toxicity)

: EC50 (Daphnia magna (Water flea)): 0.08 mg/l

End point: reproduction rate

Exposure time: 21 d Test Type: semi-static test Analytical monitoring: yes

Method: OECD Test Guideline 211

M-Factor (Chronic aquatic : 1

toxicity)

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: EC50 (activated sludge): > 1,000 mg/l Toxicity to

microorganisms Exposure time: 3 h Test Type: static test

Method: OECD Test Guideline 209

GLP: yes

Persistence and degradability

Components:

zinc powder, zinc dust stabilized:

Biodegradability : Remarks: The methods for determining the biological

degradability are not applicable to inorganic

substances.

Zinc oxide:

Biodegradability : Remarks: The methods for determining the biological

degradability are not applicable to inorganic

substances.

Bioaccumulative potential

Components:

zinc powder, zinc dust stabilized:

Bioaccumulation : Remarks: Substance is not persistent,

bioaccumulative, and toxic (PBT).

Partition coefficient: n-

octanol/water

: Remarks: Not applicable for inorganic substances

Zinc oxide:

octanol/water

Partition coefficient: n- : Remarks: Not applicable for inorganic substances

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential: Regulation: 40 CFR Protection of Environment; Part

82 Protection of Stratospheric Ozone - CAA Section

602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as

defined by the U.S. Clean Air Act Section 602 (40 CFR

82, Subpt. A, App.A + B).

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SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Waste material must be disposed of in accordance

with the national and local regulations. Leave

chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product

itself.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No. : UN 3077

Proper shipping name : Environmentally hazardous substance, solid, n.o.s.

(zinc powder, zinc dust stabilized, Zinc oxide)

Class : 9 Packing group : III

Labels : Class 9 - Miscellaneous dangerous substances and

articles

Packing instruction (cargo: 956

aircraft)

Packing instruction : 956

(passenger aircraft)

IMDG-Code

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(zinc powder, zinc dust stabilized, Zinc oxide)

Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

National regulation

49 CFR Road

UN/ID/NA number : UN 3077

Proper shipping name : Environmentally hazardous substance, solid, n.o.s.

(zinc powder, zinc dust stabilized, Zinc oxide)

Class : 9 Packing group : III

Labels : Class 9 - Miscellaneous dangerous substances and

articles

ERG Code : 171 Marine pollutant : no

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Poison Inhalation Hazard : No

Special precautions for user

Remarks : EHS-Mark required (ADR 2.2.9.1.10, IMDG code

2.10.3) for single packagings and combination packagings containing inner packagings with

Dangerous Goods > 5L for liquids or > 5kg for solids.

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

Components	CAS-No.	Component Calculated prod	
		RQ (lbs)	RQ (lbs)
zinc powder, zinc dust stabilized	7440-66-6	1000	1030

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312

Hazards

: No SARA Hazards

SARA 313 : The following components are subject to reporting

levels established by SARA Title III, Section 313:

zinc powder, 7440-66-6 >= 90 - <= 100 %

zinc dust stabilized

Zinc oxide 1314-13-2 >= 1 - < 5 %

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B). This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

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Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307

zinc powder, zinc dust 7440-66-6 >= 90 - <= 100 %

stabilized

Zinc oxide 1314-13-2 >= 1 - < 5 %

This product contains the following priority pollutants related to the U.S. Clean Water Act:

zinc powder, zinc dust 7440-66-6 >= 90 - <= 100 %

stabilized

US State Regulations

Massachusetts Right To Know

zinc powder, zinc dust stabilized 7440-66-6 Zinc oxide 1314-13-2

Pennsylvania Right To Know

zinc powder, zinc dust stabilized 7440-66-6 Zinc oxide 1314-13-2

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

Washington Chemicals of High Concern

Product does not contain any listed chemicals

The ingredients of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

TSCA list

No substances are subject to a Significant New Use Rule.

The following substance(s) is/are subject to TSCA 12(b) export notification requirements: zinc powder, zinc dust stabilized 7440-66-6

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL : USA. NIOSH Recommended Exposure Limits

OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-

1 Limits for Air Contaminants: 8-hour, time-weighted average

ACGIH / TWA : 8-hour, time-weighted ave ACGIH / STEL : Short-term exposure limit

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NIOSH REL / TWA : Time-weighted average concentration for up to a 10-

hour workday during a 40-hour workweek

NIOSH REL / ST : STEL - 15-minute TWA exposure that should not be

exceeded at any time during a workday

NIOSH REL / C : Ceiling value not be exceeded at any time.

OSHA Z-1 / TWA : 8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA -International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA -Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Decomposition Temperature; SARA - Superfund Amendments Accelerating Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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