

Copper Oxide Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	11153934-00009	Date of first issue: 20.12.2022

SECTION 1. IDENTIFICATION

Product identifier : Copper Oxide Solid Formulation

Other means of identification : COOPERS PERMATRACE COPPER 10 CAPSULES FOR CALVES AND ADULT CATTLE (47689)
COOPERS PERMATRACE COPPER 20 CAPSULES FOR CATTLE (47688)
COOPERS PERMATRACE COPPER CAPSULES FOR ADULT SHEEP & GOATS (47637)

Manufacturer or supplier's details

Company : MSD

Address : Rua Coronel Bento Soares, 530
Cruzeiro - Sao Paulo - Brazil CEP 12730-340

Telephone : 908-740-4000

Emergency telephone : 1-908-423-6000

E-mail address : EHSDATASTEWARD@msd.com

Recommended use of the chemical and restrictions on use

Recommended use : Veterinary product

Restrictions on use : Not applicable

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification in accordance with ABNT NBR 14725 Standard**

Short-term (acute) aquatic hazard : Category 1

Long-term (chronic) aquatic hazard : Category 1

GHS label elements in accordance with ABNT NBR 14725 Standard

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**
P273 Avoid release to the environment.

Copper Oxide Solid Formulation

Version 6.0 Revision Date: 14.04.2025 SDS Number: 11153934-00009 Date of last issue: 28.09.2024
Date of first issue: 20.12.2022

Response:

P391 Collect spillage.

Other hazards which do not result in classification

Dust contact with the eyes can lead to mechanical irritation.
Contact with dust can cause mechanical irritation or drying of the skin.
May form explosive dust-air mixture during processing, handling or other means.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Classification	Concentration (% w/w)
Copper oxide	1317-38-0	Aquatic Acute, 1 Aquatic Chronic, 1	≥ 30 -< 50
Diiron trioxide	1309-37-1		≥ 1 -< 5
tert-Butyl-4-methoxyphenol	25013-16-5	Acute Tox. (Oral), 5 Skin Irrit., 2 Eye Irrit., 2A Carc., 2 Repr., 2 Aquatic Acute, 2 Aquatic Chronic, 2	$\geq 0,25$ -< 1
2,6-Di-tert-butyl-p-cresol	128-37-0	Aquatic Acute, 1 Aquatic Chronic, 1	$\geq 0,1$ -< 0,25

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.
Get medical attention.

In case of skin contact : In case of contact, immediately flush skin with soap and plenty of water.
Remove contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

In case of eye contact : If in eyes, rinse well with water.
Get medical attention if irritation develops and persists.

If swallowed : If swallowed, DO NOT induce vomiting.
Get medical attention.
Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed : Contact with dust can cause mechanical irritation or drying of the skin.
Dust contact with the eyes can lead to mechanical irritation.

Protection of first-aiders : First Aid responders should pay attention to self-protection,

Copper Oxide Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	11153934-00009	Date of first issue: 20.12.2022

Notes to physician : and use the recommended personal protective equipment when the potential for exposure exists (see section 8).
: Treat symptomatically and supportively.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical

Unsuitable extinguishing media : None known.

Specific hazards during fire fighting : Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides
Metal oxides

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions : Avoid release to the environment.
Prevent further leakage or spillage if safe to do so.
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Sweep up or vacuum up spillage and collect in suitable container for disposal.
Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).
Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.

Copper Oxide Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	11153934-00009	Date of first issue: 20.12.2022

Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

- Technical measures : Static electricity may accumulate and ignite suspended dust causing an explosion.
Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
- Local/Total ventilation : Use only with adequate ventilation.
- Advice on safe handling : Do not breathe dust.
Do not swallow.
Avoid contact with eyes.
Avoid prolonged or repeated contact with skin.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Minimize dust generation and accumulation.
Keep container closed when not in use.
Keep away from heat and sources of ignition.
Take precautionary measures against static discharges.
Take care to prevent spills, waste and minimize release to the environment.
- Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.
The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls.
- Conditions for safe storage : Keep in properly labeled containers.
Store in accordance with the particular national regulations.
- Materials to avoid : Do not store with the following product types:
Strong oxidizing agents

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Ingredients with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Diiron trioxide	1309-37-1	TWA (Respirable particulate matter)	5 mg/m ³	ACGIH
2,6-Di-tert-butyl-p-cresol	128-37-0	TWA (Inhalable fraction and vapor)	2 mg/m ³	ACGIH

Copper Oxide Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	11153934-00009	Date of first issue: 20.12.2022

Engineering measures : Use feasible engineering controls to minimize exposure to compound.
All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.

Personal protective equipment

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Particulates type

Hand protection

Material : Chemical-resistant gloves

Eye protection : Wear safety glasses with side shields or goggles.
If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.
Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.

Skin and body protection : Work uniform or laboratory coat.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : capsule

Color : metallic
gray

Odor : No data available

Odor Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling range : No data available

Flash point : Not applicable

Evaporation rate : Not applicable

Flammability (solid, gas) : May form explosive dust-air mixture during processing, handling or other means.

Flammability (liquids) : Not applicable

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower

Copper Oxide Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	11153934-00009	Date of first issue: 20.12.2022

flammability limit

Vapor pressure : Not applicable

Relative vapor density : Not applicable

Relative density : No data available

Density : No data available

Solubility(ies)

Water solubility : No data available

Partition coefficient: n-octanol/water : Not applicable

Autoignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : Not applicable

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Molecular weight : No data available

Particle characteristics

Particle size : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : May form explosive dust-air mixture during processing, handling or other means.

Can react with strong oxidizing agents.

Conditions to avoid : Heat, flames and sparks.

Avoid dust formation.

Incompatible materials : Oxidizing agents

Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	: Inhalation Skin contact Ingestion Eye contact
--	--

Copper Oxide Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	11153934-00009	Date of first issue: 20.12.2022

Acute toxicity

Not classified based on available information.

Components:**Copper oxide:**

Acute oral toxicity	: LD50 (Rat): > 2.500 mg/kg Assessment: The substance or mixture has no acute oral toxicity
Acute dermal toxicity	: LD50 (Rat): > 2.000 mg/kg Method: OECD Test Guideline 402 Assessment: The substance or mixture has no acute dermal toxicity

Diiron trioxide:

Acute oral toxicity	: LD50 (Rat): > 5.000 mg/kg Method: Directive 67/548/EEC, Annex V, B.1.
Acute inhalation toxicity	: LC50 (Rat): > 5,05 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity

tert-Butyl-4-methoxyphenol:

Acute oral toxicity	: LD50 (Rabbit): 2.100 mg/kg
Acute dermal toxicity	: LD50 (Rat): > 2.000 mg/kg Method: OECD Test Guideline 402 Assessment: The substance or mixture has no acute dermal toxicity

2,6-Di-tert-butyl-p-cresol:

Acute oral toxicity	: LD50 (Rat): > 6.000 mg/kg Method: OECD Test Guideline 401
Acute dermal toxicity	: LD50 (Rat): > 2.000 mg/kg Method: OECD Test Guideline 402 Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Not classified based on available information.

Components:**Copper oxide:**

Species	: Rabbit
Method	: OECD Test Guideline 404
Result	: No skin irritation

Copper Oxide Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	11153934-00009	Date of first issue: 20.12.2022

Diiron trioxide:

Species	: Rabbit
Method	: OECD Test Guideline 404
Result	: No skin irritation

tert-Butyl-4-methoxyphenol:

Species	: Rabbit
Result	: Skin irritation

2,6-Di-tert-butyl-p-cresol:

Species	: Rabbit
Method	: OECD Test Guideline 404
Result	: No skin irritation
Remarks	: Based on data from similar materials

Serious eye damage/eye irritation

Not classified based on available information.

Components:**Copper oxide:**

Species	: Rabbit
Result	: No eye irritation
Method	: OECD Test Guideline 405

Diiron trioxide:

Species	: Rabbit
Result	: No eye irritation
Method	: OECD Test Guideline 405

tert-Butyl-4-methoxyphenol:

Species	: Rabbit
Result	: Irritation to eyes, reversing within 21 days
Remarks	: Based on data from similar materials

2,6-Di-tert-butyl-p-cresol:

Species	: Rabbit
Result	: No eye irritation
Method	: OECD Test Guideline 405
Remarks	: Based on data from similar materials

Respiratory or skin sensitization**Skin sensitization**

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Copper Oxide Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	11153934-00009	Date of first issue: 20.12.2022

Components:**Copper oxide:**

Test Type	: Maximization Test
Routes of exposure	: Skin contact
Species	: Guinea pig
Method	: OECD Test Guideline 406
Result	: negative

tert-Butyl-4-methoxyphenol:

Test Type	: Human repeat insult patch test (HRIPT)
Routes of exposure	: Skin contact
Result	: negative

2,6-Di-tert-butyl-p-cresol:

Test Type	: Human repeat insult patch test (HRIPT)
Routes of exposure	: Skin contact
Species	: Humans
Result	: negative

Germ cell mutagenicity

Not classified based on available information.

Components:**Copper oxide:**

Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative Remarks: Based on data from similar materials
Genotoxicity in vivo	: Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Mouse Application Route: Ingestion Result: negative Remarks: Based on data from similar materials

Diiron trioxide:

Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Result: negative
Genotoxicity in vivo	: Test Type: In vivo mammalian alkaline comet assay Species: Rat Application Route: Ingestion Method: OECD Test Guideline 489 Result: negative

tert-Butyl-4-methoxyphenol:

Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Result: negative
-----------------------	--

Copper Oxide Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	11153934-00009	Date of first issue: 20.12.2022

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

Test Type: Chromosome aberration test in vitro
Result: negative

Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
Result: negative

2,6-Di-tert-butyl-p-cresol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Result: negative

Test Type: Chromosome aberration test in vitro
Result: negative

Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
Species: Rat
Application Route: Ingestion
Result: negative

Carcinogenicity

Not classified based on available information.

Components:**tert-Butyl-4-methoxyphenol:**

Species : Rat
Application Route : Ingestion
Exposure time : 104 weeks
Result : positive

Species : Hamster, male
Application Route : Ingestion
Exposure time : 24 weeks
Result : positive

Carcinogenicity - Assessment : Limited evidence of carcinogenicity in animal studies

2,6-Di-tert-butyl-p-cresol:

Species : Rat
Application Route : Ingestion
Exposure time : 22 Months
Result : negative

Copper Oxide Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	11153934-00009	Date of first issue: 20.12.2022

Reproductive toxicity

Not classified based on available information.

Components:**Copper oxide:**

Effects on fertility	:	Test Type: Two-generation reproduction toxicity study Species: Rat Application Route: Ingestion Method: OECD Test Guideline 416 Result: negative Remarks: Based on data from similar materials
----------------------	---	---

tert-Butyl-4-methoxyphenol:

Effects on fertility	:	Test Type: One-generation reproduction toxicity study Species: Rat Application Route: Ingestion Result: negative
Effects on fetal development	:	Test Type: Fertility/early embryonic development Species: Mouse Application Route: Ingestion Result: positive
Reproductive toxicity - Assessment	:	Some evidence of adverse effects on development, based on animal experiments.

2,6-Di-tert-butyl-p-cresol:

Effects on fertility	:	Test Type: Two-generation reproduction toxicity study Species: Rat Application Route: Ingestion Result: negative
Effects on fetal development	:	Test Type: Embryo-fetal development Species: Rat Application Route: Ingestion Result: negative

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Not classified based on available information.

Components:**2,6-Di-tert-butyl-p-cresol:**

Assessment	:	No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.
------------	---	--

Copper Oxide Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	11153934-00009	Date of first issue: 20.12.2022

Repeated dose toxicity**Components:****Copper oxide:**

Species	: Mouse
NOAEL	: 1000 ppm
Application Route	: Ingestion
Exposure time	: 92 Days
Remarks	: Based on data from similar materials

Diiron trioxide:

Species	: Rat
NOAEL	: ≥ 1.000 mg/kg
Application Route	: Ingestion
Exposure time	: 90 Days
Method	: OECD Test Guideline 408

tert-Butyl-4-methoxyphenol:

Species	: Rat
NOAEL	: 50 mg/kg
LOAEL	: 250 mg/kg
Application Route	: Ingestion
Exposure time	: 8 Months

2,6-Di-tert-butyl-p-cresol:

Species	: Rat
NOAEL	: 25 mg/kg
Application Route	: Ingestion
Exposure time	: 22 Months

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****Copper oxide:**

Toxicity to fish	: LC50 (Pimephales promelas (fathead minnow)): $> 0,01 - 0,1$ mg/l Exposure time: 96 h Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): $> 0,1 - 1$ mg/l Exposure time: 48 h Remarks: Based on data from similar materials
M-Factor (Acute aquatic tox-	: 10

Copper Oxide Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	11153934-00009	Date of first issue: 20.12.2022

icity)		
Toxicity to fish (Chronic toxicity)	:	NOEC (Oncorhynchus mykiss (rainbow trout)): > 0,001 - 0,01 mg/l Exposure time: 32 d Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Ceriodaphnia dubia (water flea)): > 0,001 - 0,01 mg/l Exposure time: 7 d Remarks: Based on data from similar materials
M-Factor (Chronic aquatic toxicity)	:	10

Diiron trioxide:

Toxicity to fish	:	LL50 (Danio rerio (zebra fish)): > 10.000 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EL50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	EL50 (Raphidocelis subcapitata (freshwater green alga)): > 20 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOELR (Raphidocelis subcapitata (freshwater green alga)): >= 20 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOELR (Daphnia magna (Water flea)): >= 20 mg/l Exposure time: 21 d Method: OECD Test Guideline 211
Toxicity to microorganisms	:	EL50 (activated sludge): >= 100 mg/l Exposure time: 3 h Method: ISO 8192 Remarks: Based on data from similar materials

tert-Butyl-4-methoxyphenol:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): 1,56 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 2,3 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 1,9 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Pseudokirchneriella subcapitata (green algae)): 0,25

Copper Oxide Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	11153934-00009	Date of first issue: 20.12.2022

mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

2,6-Di-tert-butyl-p-cresol:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): > 0,57 mg/l Exposure time: 96 h Method: Directive 67/548/EEC, Annex V, C.1.
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0,48 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): > 0,24 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Pseudokirchneriella subcapitata (green algae)): 0,24 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
M-Factor (Acute aquatic toxicity)	:	1
Toxicity to fish (Chronic toxicity)	:	NOEC (Oryzias latipes (Japanese medaka)): 0,053 mg/l Exposure time: 30 d Method: OECD Test Guideline 210
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0,316 mg/l Exposure time: 21 d
M-Factor (Chronic aquatic toxicity)	:	1
Toxicity to microorganisms	:	EC50: > 10.000 mg/l Exposure time: 3 h Method: OECD Test Guideline 209

Persistence and degradability**Components:****2,6-Di-tert-butyl-p-cresol:**

Biodegradability	:	Result: Not readily biodegradable. Biodegradation: 4,5 % Exposure time: 28 d Method: OECD Test Guideline 301C
------------------	---	--

Bioaccumulative potential**Components:****tert-Butyl-4-methoxyphenol:**

Bioaccumulation	:	Species: Oryzias latipes (Orange-red killifish)
-----------------	---	---

Copper Oxide Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	11153934-00009	Date of first issue: 20.12.2022

	Bioconcentration factor (BCF): 16 - 21
Partition coefficient: n-octanol/water	: log Pow: 2,82 Method: OECD Test Guideline 117

2,6-Di-tert-butyl-p-cresol:

Bioaccumulation	: Species: Cyprinus carpio (Carp) Bioconcentration factor (BCF): 330 - 1.800
Partition coefficient: n-octanol/water	: log Pow: 5,1

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues	: Do not dispose of waste into sewer. Dispose of in accordance with local regulations.
Contaminated packaging	: Empty containers should be taken to an approved waste handling site for recycling or disposal. If not otherwise specified: Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION**International Regulations****UNRTDG**

UN number	: UN 3077
Proper shipping name	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper oxide, 2,6-Di-tert-butyl-p-cresol)
Class	: 9
Packing group	: III
Labels	: 9
Environmentally hazardous	: yes

IATA-DGR

UN/ID No.	: UN 3077
Proper shipping name	: Environmentally hazardous substance, solid, n.o.s. (Copper oxide, 2,6-Di-tert-butyl-p-cresol)
Class	: 9
Packing group	: III
Labels	: Miscellaneous
Packing instruction (cargo aircraft)	: 956
Packing instruction (passenger aircraft)	: 956
Environmentally hazardous	: yes

IMDG-Code

Copper Oxide Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	11153934-00009	Date of first issue: 20.12.2022

UN number : UN 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Copper oxide, 2,6-Di-tert-butyl-p-cresol)
Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

Domestic regulation**ANTT**

UN number : UN 3077
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Copper oxide, 2,6-Di-tert-butyl-p-cresol)
Class : 9
Packing group : III
Labels : 9
Hazard Identification Number : 90

Special precautions for user

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

National List of Carcinogenic Agents for Humans - (LINACH)

Group 2B: Possibly carcinogenic to humans
tert-Butyl-4-methoxyphenol 25013-16-5

Brazil. List of chemicals controlled by the Federal Police : Calcium carbonate

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

AICS : not determined
DSL : not determined
IECSC : not determined

SECTION 16. OTHER INFORMATION

Revision Date : 14.04.2025
Date format : dd.mm.yyyy

Copper Oxide Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	11153934-00009	Date of first issue: 20.12.2022

Further information

Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

ACGIH / TWA : 8-hour, time-weighted average

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; 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; 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; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECl - 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; WHMIS - Workplace Hazardous Materials Information System

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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

SAFETY DATA SHEET



Copper Oxide Solid Formulation

Version	Revision Date:	SDS Number:	Date of last issue: 28.09.2024
6.0	14.04.2025	11153934-00009	Date of first issue: 20.12.2022

BR / Z8