

Copper (II) isopropoxide: sc-278878



The Power to Question

MATERIAL SAFETY DATA SHEET

1 Identification of substance:

Product Name: Copper(II)isopropoxide

Catalog Number: sc-278878

Supplier: Santa Cruz Biotechnology, Inc.
2145 Delaware Avenue
Santa Cruz, California 95060
800.457.3801 or 831.457.3800

Emergency Contact: ChemWatch

Within the US & Canada: 877-715-9305

Outside the US & Canada: +800 2436 2255

(1-800-CHEMCALL) or call +613 9573 3112

2 Composition/Data on components:

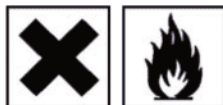
Chemical characterization:

Description: (CAS#)

Copper(II) isopropoxide (CAS# 23578-23-6)

3 Hazards identification

Hazard description:



Xn Harmful
F Highly flammable

Information pertaining to particular dangers for man and environment

R 11 Highly flammable.

R 22 Harmful if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

HEALTH	1
FIRE	2
REACTIVITY	1

Health (acute effects) = 1

Flammability = 2

Reactivity = 1

GHS label elements



Warning

2.7/2 - Flammable solid.



Warning

3.1/4 - Harmful if swallowed.

3.2/2 - Causes skin irritation.

3.3/2A - Causes serious eye irritation.

3.8/3 - May cause respiratory irritation.

Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

Response:

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN: Wash with plenty of soap and water.

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IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Call a POISON CENTER or doctor/physician if you feel unwell.
 Specific treatment (see on this label).
 Rinse mouth.
 If skin irritation occurs: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
 Take off contaminated clothing and wash before reuse.
 In case of fire: Use for extinction: CO₂, powder or water spray.
Storage:
 Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.
Disposal:
 Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

General information Immediately remove any clothing soiled by the product.
After inhalation
 Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice.
After skin contact
 Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice.
After eye contact
 Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing Seek immediate medical advice.

5 Fire fighting measures

Suitable extinguishing agents CO₂, sand, extinguishing powder. Do not use water.
For safety reasons unsuitable extinguishing agents Water
Special hazards caused by the material, its products of combustion or resulting gases:
 In case of fire, the following can be released:
 Carbon monoxide and carbon dioxide
 Toxic metal oxide fume
Protective equipment:
 Wear self-contained respirator.
 Wear fully protective impervious suit.

6 Accidental release measures

Person-related safety precautions:
 Wear protective equipment. Keep unprotected persons away.
 Ensure adequate ventilation
 Keep away from ignition sources
Measures for environmental protection:
 Do not allow material to be released to the environment without proper governmental permits.
Measures for cleaning/collecting:
 Use neutralizing agent.
 Dispose contaminated material as waste according to item 13.
 Ensure adequate ventilation.
 Keep away from ignition sources.
Additional information:
 See Section 7 for information on safe handling
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

7 Handling and storage

Handling
Information for safe handling:
 Handle under dry protective gas.
 Keep container tightly sealed.
 Store in cool, dry place in tightly closed containers.
 Ensure good ventilation at the workplace.
Information about protection against explosions and fires:
 Protect from humidity and water.

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Keep ignition sources away.
Protect against electrostatic charges.

Storage

Requirements to be met by storerooms and receptacles: Store in a cool location.

Information about storage in one common storage facility:

Store away from oxidizing agents.

Store away from water/moisture.

Do not store together with acids.

Further information about storage conditions:

Store under dry inert gas.

This product is moisture sensitive.

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

Protect from humidity and water.

8 Exposure controls and personal protection

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with limit values that require monitoring at the workplace:

Copper fume, dusts and mists (as Cu)

	mg/m ³
ACGIH TLV	1 (dust, mist); 0.2 (fume)
Austria MAK	1; 0.1 (fume)
Belgium TWA	0.2 (fume); 1 (dust)
Denmark TWA	0.1
Finland TWA	0.2 (fume); 1 (dust)
France VME	0.2 (fume); 1 (dust); 1; 2-STEL (dust)
Germany MAK	0.1 (fume); 1 (dust)
Hungary TWA	0.2; 0.4-STEL (dust)
Korea TLV	1 (dust, mist); 0.2 (fume)
Netherlands MAC-TGG	1 (dust)
Norway TWA	0.05; 0.1 (fume)
Poland TWA	0.1 (fume); 0.3-STEL (fume)
Russia	1-STEL (dust)
Sweden NGV	0.2 (resp. dust); 1 (total dust)
Switzerland MAK-W	0.1; 0.2-KZG-W (fume)
	1; 1-KZG-W
United Kingdom TWA	0.2 (fume)
	1; 3-STEL (dusts and mist)
USA PEL TWA	0.1 (fume); 1 (dusts and mists)

Additional information: No data

Personal protective equipment**General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Breathing equipment: Use suitable respirator when high concentrations are present.

Protection of hands: Impervious gloves

Eye protection:

Safety glasses

Tightly sealed goggles

Full face protection

Body protection: Protective work clothing.

9 Physical and chemical properties:**General Information**

Form:	Powder
Color:	Blue
Odor:	Not determined

Change in condition

Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined

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Sublimation temperature / start:	Not determined
Flash point:	Not applicable
Flammability (solid, gaseous)	Highly flammable.
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Explosion limits:	
Lower:	Not determined
Upper:	Not determined
Vapor pressure:	Not determined
Density:	Not determined
Solubility in / Miscibility with Water:	Hydrolyzes

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:

Decomposition will not occur if used and stored according to specifications.

Materials to be avoided:

Water/moisture
Oxidizing agents
Acids

Dangerous reactions

Contact with water releases flammable gases
Contact with water releases irritant gases

Dangerous products of decomposition:

Carbon monoxide and carbon dioxide
Flammable gases/vapors
Corrosive gases/vapors
Metal oxide fume
Toxic metal oxide fume

11 Toxicological information

Acute toxicity:

Primary irritant effect:

on the skin: Irritant to skin and mucous membranes.

on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Subacute to chronic toxicity:

Copper compounds may be irritating to the skin, eyes and respiratory tract. They may cause metal fume fever, hemolysis of the red blood cells and injury to the liver, lungs, kidneys and pancreas. Ingestion may also cause vomiting, gastric pain, dizziness, anemia, cramps, convulsions, shock, coma and death. Copper solutions may cause sensitization reactions.

Subacute to chronic toxicity:

Isopropyl alcohol, if formed, may act as a local irritant and in high concentrations as a narcotic with symptoms such as headache, nausea, dizziness, vomiting, mental depression, anesthesia, and coma. Similar symptoms may be caused by ingestion. It can cause corneal burns on contact with the eyes and has caused teratogenic, mutagenic and reproductive effects in laboratory animals.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

12 Ecological information:

General notes:

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Do not allow material to be released to the environment without proper governmental permits.

13 Disposal considerations

Product:

Recommendation Consult state, local or national regulations to ensure proper disposal.

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Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14 Transport information

DOT regulations:



Hazard class: 4.1
Identification number: UN3181
Packing group: III
Proper shipping name (technical name): METAL SALTS OF ORGANIC COMPOUNDS, FLAMMABLE, N.O.S. (Copper(II) isopropoxide)
Label: 4.1

Land transport ADR/RID (cross-border)



ADR/RID class: 4.1 (F3) Flammable solids, self-reactive substances and solid desensitised explosives
Danger code (Kemler): 40
UN-Number: 3181
Packaging group: III
Description of goods: 3181 METAL SALTS OF ORGANIC COMPOUNDS, FLAMMABLE, N.O.S. (Copper(II) isopropoxide)

Maritime transport IMDG:



IMDG Class: 4.1
UN Number: 3181
Label: 4.1
Packaging group: III
EMS Number: F-A,S-I
Marine pollutant: No
Proper shipping name: METAL SALTS OF ORGANIC COMPOUNDS, FLAMMABLE, N.O.S. (Copper(II) isopropoxide)

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 4.1
UN/ID Number: 3181
Label: 4.1
Packaging group: III
Proper shipping name: METAL SALTS OF ORGANIC COMPOUNDS, FLAMMABLE, N.O.S. (Copper(II) isopropoxide)

UN "Model Regulation": UN3181, METAL SALTS OF ORGANIC COMPOUNDS, FLAMMABLE, N.O.S., 4.1, III

15 Regulations

Product related hazard informations:

Hazard symbols:

Xn Harmful

F Highly flammable

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Risk phrases:

- 11 Highly flammable.
22 Harmful if swallowed.
36/37/38 Irritating to eyes, respiratory system and skin.

Safety phrases:

- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37 Wear suitable protective clothing and gloves.

National regulations

This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory. Use of this product is restricted to research and development only.

Some or all of the components of this product are not listed on the Canadian Domestic Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL).

Information about limitation of use:

For use only by technically qualified individuals.
This product contains copper and is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.

16 Other information:

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.

USA

04/14/2010