

SAFETY DATA SHEET

Creation Date 08-Feb-2012

Revision Date 20-Dec-2025

Revision Number 7

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

1. Identification

Product Name Silica gel humidity indicator cards, cobalt free

Cat No. : AC448430000; AC448430100; AC448430250

Synonyms No information available

Recommended Use Laboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99
CHEMTREC Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

2. Hazard(s) identification

Classification

Classification according to [US] OSHA (29 CFR 1910.1200, 2024)

Label Elements

None required

Hazards not otherwise classified (HNOC)

Harmful to aquatic life with long lasting effects

Hazards classified under paragraph (d)(1)(ii) of 1910.1200

No information available

3. Composition/information on Ingredients

Component	CAS No	Weight %
Mixed non-hazardous components	NA	>99
Copper bromide (CuBr ₂)	7789-45-9	<0.25
Sodium bromide	7647-15-6	<0.25
Copper (II) chloride dihydrate	10125-13-0	<0.25

4. First-aid measures

Eye Contact	Not an expected route of exposure.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
Inhalation	Not an expected route of exposure.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
Most important symptoms and effects	None reasonably foreseeable.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Combustible material.

Hazardous Combustion Products

None known.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
0

Flammability
1

Instability
0

Physical hazards
N/A

6. Accidental release measures

Personal Precautions	None required for material as supplied.
Environmental Precautions	Avoid release to the environment. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up Pick up and transfer to properly labelled containers.

7. Handling and Storage

Handling Keep containers dry and tightly closed to avoid moisture absorption and contamination. Wash hands before breaks and immediately after handling the product.

Storage. Store in a dry place. Keep container tightly closed. Keep container closed when not in use.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH	Mexico OEL (TWA)
Copper bromide (CuBr ₂)	TWA: 1 mg/m ³		IDLH: 100 mg/m ³ REL = 1 mg/m ³ (TWA)	
Copper (II) chloride dihydrate	TWA: 1 mg/m ³		IDLH: 100 mg/m ³ REL = 1 mg/m ³ (TWA)	

Legend

ACGIH - American Conference of Governmental Industrial Hygienists
 NIOSH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures None under normal use conditions.

Personal Protective Equipment

- Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
- Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.
- Respiratory Protection** No protective equipment is needed under normal use conditions.
- Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance

Physical State Paper
Color White
Odor No information available
Odor Threshold No information available
Property Values
Melting Point/Range No data available
Softening Point No data available
Boiling Point/Range No information available
Flash Point No information available
Flammability (liquid) Not applicable
Flammability (solid,gas) No information available
Explosion Limits No data available

Remarks • Method

Method - No information available
 Solid

Autoignition Temperature No data available
Decomposition Temperature No data available
pH Not applicable
Viscosity Not applicable Solid

Water Solubility	Insoluble in water	
Solubility in other solvents	No information available	
Partition Coefficient (n-octanol/water)		
Vapor Pressure	No data available	
Density / Specific Gravity	No data available	
Bulk Density	No data available	
Vapor Density	Not applicable	Solid
Particle characteristics	No data available	

Other Information

Evaporation Rate Not applicable - Solid

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Incompatible products.

Incompatible Materials Strong oxidizing agents

Hazardous Decomposition Products None under normal use conditions

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Information on expected route of exposure

Inhalation Not an expected route of exposure.
Ingestion No known effect based on information supplied.
Eyes Not an expected route of exposure.
Skin No known effect based on information supplied.

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Copper bromide (CuBr ₂)	536 mg/kg (Rat)	-	-
Sodium bromide	LD50 = 3500 mg/kg (Rat)	>2000 mg/kg (Rabbit)	-

Toxicologically Synergistic Products No information available

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; No data available

(d) respiratory or skin sensitization;

Respiratory No data available
Skin No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity;

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

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Mixed non-hazardous components	NA	Not listed	Not listed	Not listed	Not listed	Not listed
Copper bromide (CuBr ₂)	7789-45-9	Not listed	Not listed	Not listed	Not listed	Not listed
Sodium bromide	7647-15-6	Not listed	Not listed	Not listed	Not listed	Not listed
Copper (II) chloride dihydrate	10125-13-0	Not listed	Not listed	Not listed	Not listed	Not listed

(g) reproductive toxicity; No data available

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; No data available

Target Organs None known.

(j) aspiration hazard; Not applicable
Solid

Symptoms / effects, both acute and delayed No information available.

Other Adverse Effects The toxicological properties have not been fully investigated.

Endocrine Disrupting Properties This product does not contain any known or suspected endocrine disruptors.

12. Ecological information

Ecotoxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Copper bromide (CuBr ₂)	EC50 = 85 µg/L (14d) <i>Raphidocelis subcapitata</i>	LC50 = 286 µg/L (96h) <i>Oncorhynchus kisutch</i>	Not listed	EC50 = 0.36 mg/L (48h) (QSAR)
Sodium bromide	EC50: 5800 - 24000 mg/L, 96h (<i>Scenedesmus pannonicus</i>)	LC50: > 1000 mg/L, 96h static (<i>Oncorhynchus mykiss</i>) LC50: 24000 - 96000 mg/L, 96h flow-through (<i>Oryzias latipes</i>) LC50: = 24000 mg/L, 96h semi-static (<i>Oryzias latipes</i>) LC50: 16000 - 24000 mg/L, 96h flow-through (<i>Poecilia reticulata</i>) LC50: = 16000 mg/L, 96h semi-static (<i>Poecilia reticulata</i>) LC50: 0.054 - 0.081 mg/L, 96h flow-through (<i>Oncorhynchus mykiss</i>) LC50: > 1000 mg/L, 96h static (<i>Lepomis macrochirus</i>)	-	EC50: 5700 - 10800 mg/L, 48h Static (<i>Daphnia magna</i>) EC50: 5800 - 48000 mg/L, 48h (<i>Daphnia magna</i>)

		LC50: 15614 - 17428 mg/L, 96h static (Pimephales promelas)		
Copper (II) chloride dihydrate	Not listed	Not listed	= 0.16 mg/L EC50 Photobacterium phosphoreum 30 min as Cu++ = 0.27 mg/L EC50 Photobacterium phosphoreum 15 min as Cu++ = 1.29 mg/L EC50 Photobacterium phosphoreum 5 min as Cu++	Not listed

Persistence and Degradability Insoluble in water

Bioaccumulation/ Accumulation No information available.

Mobility Is not likely mobile in the environment due its low water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. Regulatory Information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Mixed non-hazardous components	NA	-	-	-
Copper bromide (CuBr ₂)	7789-45-9	X	ACTIVE	-
Sodium bromide	7647-15-6	X	ACTIVE	-
Copper (II) chloride dihydrate	10125-13-0	-	-	-

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical
Substances & Mixtures, Under TSCA Section 6(h) (PBT)** Not applicable

TSCA 12(b) - Notices of Export Not applicable

International Inventories

X = listed, U.S.A. (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), Korea (KECL), China (IECSC), Japan (ENCS), Philippines (PICCS), Taiwan (TCSI), Japan (ISHL), New Zealand (NZIoC), Japan (ISHL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Mixed non-hazardous components	NA	-	-	-	-	-	-	-	-	-

Copper bromide (CuBr ₂)	7789-45-9	X	-	232-167-2	X	X	X	X	X	KE-08921
Sodium bromide	7647-15-6	X	-	231-599-9	X	X	X	X	X	KE-31368
Copper (II) chloride dihydrate	10125-13-0	-	-	-	X	-	-	X	X	-

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	CAS No	Weight %	SARA 313 - Threshold Values %	SARA 313 - Reporting thresholds
Copper bromide (CuBr ₂)	7789-45-9	<0.25	1.0 %	-
Copper (II) chloride dihydrate	10125-13-0	<0.25	1.0 %	-

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Copper bromide (CuBr ₂)	-	-	X	-
Copper (II) chloride dihydrate	-	-	X	-

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Copper bromide (CuBr ₂)	-	X	X	-	-
Copper (II) chloride dihydrate	-	X	X	-	-

U.S. Department of Transportation

Reportable Quantity (RQ): N
 DOT Marine Pollutant N
 DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade

No information available

Authorisation/Restrictions according to EU REACH

Not applicable

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Mixed non-hazardous components	NA	-	-	-
Copper bromide (CuBr ₂)	7789-45-9	-	-	-
Sodium bromide	7647-15-6	-	-	-
Copper (II) chloride dihydrate	10125-13-0	-	-	-

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

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Mixed non-hazardous components	NA	Not applicable	Not applicable	Not applicable	Not applicable
Copper bromide (CuBr ₂)	7789-45-9	Not applicable	Not applicable	Not applicable	Not applicable
Sodium bromide	7647-15-6	Listed	Not applicable	Not applicable	Not applicable
Copper (II) chloride dihydrate	10125-13-0	Not applicable	Not applicable	Not applicable	Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Other International Regulations

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Mixed non-hazardous components	NA	Not applicable	Not applicable	Not applicable	Not applicable
Copper bromide (CuBr ₂)	7789-45-9	Not applicable	Not applicable	Not applicable	Annex I - Y22
Sodium bromide	7647-15-6	Not applicable	Not applicable	Not applicable	Not applicable
Copper (II) chloride dihydrate	10125-13-0	Not applicable	Not applicable	Not applicable	Annex I - Y22

16. Other Information

Prepared By

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Revision Summary

Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024.

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 SDS