杭州海关技术中心
国家危险化学品检测重点实验室（浙江）
200000124375

电话（Tel）： 0571 8352 7220
传真（Fax）：0571 8352 7219
邮编（Post code）：311215
地址（Add.）：中国杭州市萧山区建设三路 398 号

正本/ORIGIN

编号：TCH24011142
No：TCH24011142
日期：2024-05-21
Date：2024-05-21

ZAIQ-RF(HH)-01-19

Safety Data Sheet

扫描查看在线报告

Applicant name： Hangzhou Haoteng Technology Co., Ltd.

Product Name: Basic Copper carbonate

Edit date: 2024-05-21

Edit institution: Technology Center of Hangzhou Customs District

Approver：

1. Unless other wise stated, this test report is only responsible for the sample(s).
2. This test report can not be reproduced,except in full,without prior written permission of the lab.

杭州海关技术中心

国家危险化学品检测重点实验室（浙江）

200000124375

电话（Tel）： 0571 8352 7220
传真（Fax）：0571 8352 7219
邮编（Post code）：311215
地址（Add.）：中国杭州市萧山区建设三路 398 号

正本/ORIGIN

编号：TCH24011142
No：TCH24011142
日期：2024-05-21
Date：2024-05-21

声　明

DECLARATION

1.本报告中检测结果仅对样品负责。

The result in this test report is only valid for the tested samples.

2.本报告无授权人签字、未加盖本机构报告专用章无效。

This report is invalid without authorized signature or the stamp of this organization.

3.对本报告中检测数据如有异议，请在收到报告后十五天内提出复测申请（部分特殊项目不能复测）。复测以原样为准，复测维持原结论时，由申请方承担复测费。

If there is any dissidence to the test data, the entrusting party shall apply for retesting within 15 days upon receiving this report (Some special item can not be retested).The former tested samples will be used as the retested ones. If the retest results are the same as the former ones, the retest fee will be paid by the entrusting party.

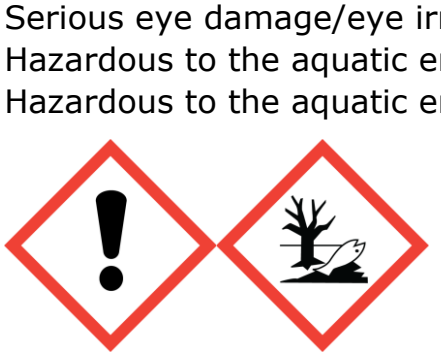
4.本报告各页均为报告不可分割部分，使用者部分使用检测报告而导致误解或由此造成后果，本机构不承担任何责任。

This report shall be used in integrity. This organization will not be responsible for any misleading caused by the content of this report.

1. Identification of substance

Product Name	Basic Copper carbonate
Other Name	Copper carbonate basic
Chemical Name	$Cu_2(OH)_2CO_3$
Recommended Use	Used for making fireworks, paint pigment, used as pigment, insecticide, phosphorus poison antidote, electroplating, wood preservative etc.
Manufacturer Name	Hangzhou Haoteng Technology Co., Ltd.
Address	100 Qingquan Road, Xindeng Town, Fuyang District, Hangzhou City, Zhejiang Province, China. /311404
Phone Number	+86-0571-63325889
Fax Number	+86-0571-63325889
WEB or E-mail	alice@fyhongyuan.com
Emergency Phone Number	+86-137 7759 8016 or call your nearest poison control centre.

2. Hazards identification

GHS classification	Acute toxicity-oral 4 Acute toxicity- inhalation 4 Serious eye damage/eye irritation 2A Hazardous to the aquatic environment, acute hazard 1 Hazardous to the aquatic environment, long-term hazard 1
GHS Pictograms	
Signal words	Warning
Hazard statements	H302:Harmful if swallowed H332:Harmful if inhaled H319:Causes serious eye irritation H400:Very toxic to aquatic life H410:Very toxic to aquatic life with long lasting effects
Precautionary Statement Prevention	P261:Avoid breathing dust/fume/gas/mist/vapours/spray. P264:Wash hands [and…] thoroughly after handing. P264+P265:Wash hands [and…] thoroughly after handing. Do not touch eyes. P270:Do not eat, drink or smoke when using this product. P271:Use only outdoors or with adequate ventilation. P273:Avoid release to the environment. P280:Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/…
Precautionary Statement Response	P301+P317:IF SWALLOWED: Get medical help. P304+P340:IF INHALED: Remove person to fresh air and keep

	comfortable for breathing. P305+P351+P338:IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P317:Get medical help. P330:Rinse mouth. P337+P317:If eye irritation persists: Get medical help. P391:Collect spillage.
Precautionary Statement Storage	None
Precautionary Statement Disposal	P501:Dispose of contents/container in according with local regulation.
Other hazards which do not result in classification	Not available.

3. Composition/information on ingredients

√**Substances**
☐**Mixtures**
Component Information

Component	**CAS number**	**EINECS number**	**Mass(%wt)**
Basic Copper carbonate	12069-69-1	235-113-6	97

Note:1. Unless a component presents a severe hazard, it does not need to be considered in the SDS if the concentration is less than 1%.

4.First-aid measures

NOTE TO PHYSICIAN	In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation.
After inhalation	Move to fresh air. Oxygen or artificial respiration if needed. Get immediate medical attention.
After skin contact	Immediately flush skin with plenty of water. Remove and isolate contaminated clothing and shoes. If irritation persists, get medical attention immediately. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse.
After eye contact	Lift the eyelids and rinse with flowing water or physiological saline. If you feel unwell, seek medical attention.
After ingestion	Drink plenty of warm water to induce vomiting. Those who take it by mistake should be lavaged with 0.1% potassium ferrocyanide or sodium thiosulfate. Drink milk or egg white. Seek medical attention.
Most important symptoms/effects，acute and delayed	Harmful by inhalation or ingestion. Irritating to the eyes, skin, mucous membranes, and upper respiratory tract. Inhaling copper carbonate smoke can cause metal smoke heat. Liver and kidney damage and hemolysis occur. Long term inhalation can cause proliferation of fibrous tissue in the lungs. Symptoms of systemic copper poisoning may include: capillary

	damage, headache, cold sweat, weak pulse, and kidney and liver damage, central nervous system excitation followed by depression, jaundice, convulsions, paralysis, and coma. Shock and kidney failure can lead to death. Chronic copper toxicity includes: liver cirrhosis, brain damage and demyelination, kidney damage; copper deposits in the cornea cause human Wilson disease. Copper toxicity has also been reported to cause hemoglobin anemia and aggravate arteriosclerosis. Harmful if swallowed. Harmful if inhaled. Causes serious eye irritation.
5. Fire-fighting measures	
Suitable extinguishing agents	Substance is nonflammable, use agent most appropriate to extinguish surrounding fire.
Special hazards caused by the material, its products of combustion or flue gases	Nonflammable. Thermal decomposition can lead to the release of irritating fumes and vapours (oxides of copper). Do not let firefighting runoff enter sewers or waterways.
Protective equipment	Put out the fire upwind, and move the container from the fire to the open area as far as possible. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
6. Accidental release measures	
Person-related safety precautions	Ensure adequate ventilation. Avoid dust formation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering. Keep unnecessary personnel away. Avoid breathing dust.
Measures for environmental protection	Prevent further leakage or spillage if safe to do so. Do not allow material to be released to the environment without proper governmental permits.
Measures for cleaning/collecting	Isolate the contaminated area and restrict access. It is recommended that emergency personnel wear dust masks and gas protective clothing. Before wearing appropriate protective clothing, it is strictly prohibited to come into contact with ruptured containers and leaks. Cut off the source of leakage as much as possible. Cover the leakage with plastic cloth to reduce flying. Do not allow water to enter the packaging container. Collect the leakage with a clean shovel and place it in a clean, dry container with a loose lid. Move the container away from the leakage area.
Additional information	See Section 7 for information on safe handling

	See section 8 for information on personal protection equipment. See Section 13 for information on disposal.

7. Handling and storage

Handling

Information for safe handling	Avoid contact with skin, eyes, mucous membranes and clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid formation of dust and aerosols.
Information about protection against explosions and fires	Keep away from heat, sources of ignition, sparks or open flame.

STORAGE

Requirements to be met by storerooms and containers	Keep in a cool, dry, well-ventilated place. Keep away from fire and heat source. Avoid direct sunlight. Keep tightly closed until used. Avoid moisture.
Information about storage in one common storage facility	Store separately from oxidants, acids and edible chemicals, and avoid mixed storage. Storage areas should be provided with suitable materials to contain spills.
Further information about storage conditions	No data.

8. Exposure controls/personal protection

Limit Values for Exposure

Component	**CAS number**	**ACGIH TLV-TWA**	**ACGIH TLV-STEL**	**NIOSH REL-TWA**	**NIOSH REL-STEL**
Basic Copper carbonate	12069-69-1	1 mg/m^3	N.E.	1 mg/m^3	N.E.

Appropriate engineering controls	Use adequate ventilation to keep airborne concentrations low. Provide safety shower and eyewash facility.
General protective and hygienic measures	Do not get this material in contact with skin. Do not get this material on clothing. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment	Chemical safety glasses, gloves, overalls and protective masks.
Breathing equipment	When workers are facing high concentrations they must use appropriate certified respirators.
Protection of hands	Wear appropriate chemical resistant gloves.
Eye/Face protection	Use safety glasses with side shields or safety goggles as mechanical barrier for prolonged exposure.
Body protection	Full set of anti chemical reagent overalls, choose body protection according to the amount and concentration of the dangerous substance at the work place.

Note: 1. N.E. not established.

9.Physical and chemical properties

Physical state	Fine amorphous powder
Colour	Green
Odour	No data available
Melting point/freezing point	200 ℃ (decompose)
Boiling point or initial boiling point and boiling range	No data available
Flammability	Nonflammable
Lower and upper explosion limit/ flammability limit	No data available
Flash point	Not applicable
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	No data available
Kinematic viscosity	Not applicable
Solubility	Insoluble in water, soluble in acid, ammonia, etc.
Partition coefficient: n-octanol/water(log value)	No data available
Vapour pressure	No data available
Density and/or relative density (water=1)	4.0
Relative vapour density (air=1)	Not applicable
Particle characteristics	No data available

10. Stability and reactivity

Reactivity	React violently with strong acids and hydrazine.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No data available.
Conditions to avoid (e.g. static discharge, shock or vibration)	Heat and flame and spark. The extreme temperatures and direct sunlight. Incompatible materials. Avoid dust formation.
Incompatible materials	Avoid contact with oxidants, acids.
Hazardous decomposition products	Copper oxide.

11.Toxicological information

Routes of Entry: Dermal contact, eye contact, inhalation, ingestion.

Acute Toxicity	
Basic Copper carbonate (CAS 12069-69-1)	LD50 (Oral, rat): 1350 mg/kg EC50 (Inhalation, rat): 1.2 mg/L (4h) LD50 (Dermal, rat): >2000 mg/kg
Skin corrosion/Irritation	Not classified
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified
Chronic Effects	Not classified
Further Information	Harmful by inhalation or ingestion. Irritating to the eyes, skin, mucous membranes, and upper respiratory tract. Inhaling copper carbonate smoke can cause metal smoke heat. Liver and kidney damage and hemolysis occur. Long term inhalation can cause proliferation of fibrous tissue in the lungs.

12. Ecological information

Ecotoxicity	
Aquatic Toxicity	Basic Copper carbonate (CAS 12069-69-1) Test & Species 96 Hr LC50 fish: N/A 48 Hr EC50 Daphnia: N/A 72 Hr EC50 Algae: N/A
Persistence and degradability	Not available
Bioaccumulative potential	Not available
Mobility in soil	Not available
Additional Information	Very toxic to aquatic life with long lasting effects. M(Chronic)=10; M=10

13. Disposal considerations

WASTE DISPOSAL INSTRUCTIONS

Contact a qualified professional waste disposal service to dispose of this material.

Dispose of in accordance with local environmental regulations or local authority requirements.

14. Transport information

The Recommendation of Transport of Dangerous Goods(TDG)

UN Number	UN 3077
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

	(Cupric carbonate basic)
Class/Division	Class 9 Miscellaneous Dangerous Substances and Articles
Package Group	PG III
Subsidiary risk	—
labelling pictogram	
Maritime transport IMDG	Being same with TDG Marine pollutant (Yes/No): Yes
Air transport ICAO-TI and IATA-DGR	Being same with TDG

15. Regulatory information

European/International Regulations	
OSHA:	Hazardous by definition of Hazard Communication Standard (29CFR 1910.1200).
EINECS Status:	This chemical is included in EINECS inventory.
EPA TSCA Status:	This chemical is included in TSCA inventory.
Canadian DSL(Domestic Substances List):	This chemical is included in DSL.
HMIS(Hazardous Material Identification System Ratings):	Health: 2 Flammability: 0 Physical hazard: 0 Personal protection: F (4. Severe Hazard; 3. Serious Hazard; 2. Moderate Hazard; 1. Slight Hazard; 0. Minimal Hazard)
WHMIS(Canadian Workplace Hazardous Material Identification System Ratings):	D1B, D2B
GB 12268-2012 List of dangerous goods	This chemical is a dangerous goods on the GB 12268-2012 list of dangerous goods.

16. other information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

This Material Safety Data Sheet was based on the "Globally Harmonized System of Classification and Labelling of Chemicals", "Recommendations on the TRANSPORT OF

DANGEROUS GOODS Model Regulations", "INTERNATIONAL MARITIME DANGEROUS GOODS CODE"," International Air Transport Association Dangerous Goods Regulations", the National Standards and other related dangerous chemicals management laws, regulations and standards, which are periodically updated and changed. To make dangerous goods / hazardous chemicals comply with the relevant requirements of the latest management, regularly update is recommended.

This Material Safety Data Sheet has been compiled in both English and Chinese. For any discrepancies, the Chinese version shall prevail.

Abbreviations and acronyms	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road RID: Regulations Concerning the International Transport of Dangerous Goods by Rail IMDG: International Maritime Code for Dangerous Goods IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO) EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent EC50: Effective concentration, 50 percent
Edit Date	21.05.2024
Update and Revise	Original edition
Edit Standard	*Globally Harmonized System of Classification and Labelling of Chemicals* Part 1.5
Revised Institution	Technology Center of Hangzhou Customs District

杭州海关技术中心

国家危险化学品检测重点实验室（浙江）

200000124375

电话（Tel）：0571 8352 7220
传真（Fax）：0571 8352 7219
邮编（Post code）：311215
地址（Add.）：中国杭州市萧山区建设三路 398 号

正本/ORIGIN

编号：TCH24011142
No：TCH24011142
日期：2024-05-21
Date：2024-05-21

扫描查看在线报告

化学品安全数据表

申请单位：杭州豪腾科技有限公司

产品名称：碱式碳酸铜

编制日期：2024-05-21

编制机构：杭州海关技术中心

批准人：

注：1.除非特别说明，本报告仅对样品负责。
2.未经本实验室许可，本报告不得部分复制。

杭州海关技术中心

国家危险化学品检测重点实验室（浙江）

200000124375

电话（Tel）：0571 8352 7220
传真（Fax）：0571 8352 7219
邮编（Post code）：311215
地址（Add.）：中国杭州市萧山区建设三路 398 号

正本/ORIGIN

编号：TCH24011142
No：TCH24011142
日期：2024-05-21
Date：2024-05-21

声　明

DECLARATION

1.本报告中检测结果仅对样品负责。

The result in this test report is only valid for the tested samples.

2.本报告无授权人签字、未加盖本机构报告专用章无效。

This report is invalid without authorized signature or the stamp of this organization.

3.对本报告中检测数据如有异议，请在收到报告后十五天内提出复测申请（部分特殊项目不能复测）。复测以原样为准，复测维持原结论时，由申请方承担复测费。

If there is any dissidence to the test data, the entrusting party shall apply for retesting within 15 days upon receiving this report (Some special item can not be retested).The former tested samples will be used as the retested ones. If the retest results are the same as the former ones, the retest fee will be paid by the entrusting party.

4.本报告各页均为报告不可分割部分，使用者部分使用检测报告而导致误解或由此造成后果，本机构不承担任何责任。

This report shall be used in integrity. This organization will not be responsible for any misleading caused by the content of this report.

1. 标识

产品名称	碱式碳酸铜
其他名称	碱式碳酸铜
化学名称	碱式碳酸铜
使用建议	用于制焰火、油漆颜料，用作颜料、杀虫剂、磷毒的解毒剂，电镀、木材防腐剂等。
生产商	杭州豪腾科技有限公司
地址	浙江省杭州市富阳区新登镇清泉路 100 号/311404
固定电话	+86-0571-63325889
传真	+86-0571-63325889
网址或电子邮件地址	alice@fyhongyuan.com
应急电话	+86-137 7759 8016 或向离你最近的解毒中心求助

2. 危险标识

GHS 危险性分类	急性毒性-口服 4 类 急性毒性-吸入 4 类 严重眼损伤/眼刺激 2A 类 危害水生环境-急性危险 1 类 危害水生环境-长期危险 1 类
GHS 危险标签	
信号词	警告
危险说明	H302:吞咽有害 H332:吸入有害 H319:造成严重眼刺激 H400:对水生生物毒性极大 H410:对水生生物毒性极大并具长期持续影响
防范说明 预防	P261:避免吸入粉尘/烟/气体/气雾/蒸气/喷雾。 P264:作业后彻底清洗手部[和……]。 P264+P265:作业后彻底清洗手部[和……]。勿触碰眼睛。 P270:使用本产品时，不要进食、饮水或吸烟。 P271:只能在室外或充分通风的情况下使用。 P273:避免释放到环境中。 P280:戴防护手套/穿防护服/戴防护眼罩/戴防护面具/戴听力保护装置……
防范说明 反应	P301+P317:如误吞咽：寻求医疗救助。 P304+P340:如误吸入:将受害人转移到空气新鲜处,保持呼吸舒适。 P305+P351+P338:如进入眼睛：用水小心冲洗几分钟。如戴隐形眼镜且可方便得取出，取出隐形眼镜。继续冲洗。 P317:寻求医疗救助。

	P330:漱口。 P337+P317:如仍觉眼刺激：寻求医疗救助。 P391:收集溢出物。
防范说明	无
贮存	
防范说明	P501:依据地方法规处置内装物/容器
处置	
不导致分类的其他危险	未知。

3. 成分构成/成分信息

√物质

□混合物

成分信息

成分	**CAS 号**	**EINECS 号**	**含量(%wt)**
碱式碳酸铜	12069-69-1	235-113-6	97

注：1.在化学品安全数据表中无需考虑百分含量小于 1%的成分，除非该成分呈现出严重的危害性。

4.急救措施

对医师的建议	在呼吸急促的情况下，需给受害人输氧。保持受害人温暖。 让受害人处于观察监护下。
吸入后	转移到有新鲜空气的地方。如需要，须输氧或进行人工呼吸。 马上就医。
皮肤接触后	立即用大量的水冲洗皮肤。脱掉被污染的衣服和鞋子。如皮肤刺激仍继续：须求医。如原是小面积的皮肤接触，防止接触面积的扩大。污染的衣服在使用前，须单独清洗。
眼睛接触后	提起眼睑，用流动清水或生理盐水冲洗。如有不适感，就医。
摄入后	饮足量温水，催吐。误服者用 0.1%亚铁氰化钾或硫代硫酸钠洗胃。 给饮牛奶或蛋清。就医。
主要的症状和影响，包括急性和迟发效应	吸入、摄入有害。对眼睛、皮肤、粘膜和上呼吸道有刺激作用。吸入碳酸铜烟可引起金属烟热。出现肝、肾损害及溶血。长期吸入可引起肺部纤维组织增生。 系统性铜中毒症状：毛细血管损伤、头痛、冷汗、脉搏微弱、肝肾损伤、中枢神经系统兴奋继而抑制、黄疸、抽搐、麻痹和昏迷。休克和肾衰会导致死亡。 慢性铜中毒包括:肝硬化、脑损伤和脱髓鞘、肾损害；铜沉积在角膜引起人威尔逊病。还有报道铜毒性导致血红蛋白贫血和加剧动脉硬化。 吞咽有害。吸入有害。造成严重眼刺激。

5. 消防措施

合适的灭火剂	物质不易燃，使用适合扑灭周围火灾的灭火剂。
由物质本身或其燃烧产物、烟气产生的特殊危险	不可燃。热分解会导致刺激性烟雾和蒸汽的释放（铜的氧化物）。不要让灭火的径流进入下水道或水道。
防护设备	在上风灭火，灭火时尽可能将容器从火场移至空旷处。 穿全套防护衣物，包括头盔，呼吸器，防护服和面罩。

6. 泄露应急处理

与人相关的安全防范措施	确保通风充分。避免粉尘生成。在穿上合适的防护服前，请勿触摸损坏的容器或泄漏物。在进入封闭空间前先通风。请不相关人员撤离。避免吸入粉尘。
环境保护措施	如能做到应防止进一步的泄露和溢出。无相关政府许可，不允许把该物质释放到环境中。
清洁/收集措施	隔离泄漏污染区，限制出入。建议应急处理人员戴防尘口罩，穿防毒服。穿上适当的防护服前严禁接触破裂的容器和泄漏物。尽可能切断泄漏源。用塑料布覆盖泄漏物，减少飞散。勿使水进入包装容器内。用洁净的铲子收集泄漏物，置于干净、干燥、盖子较松的容器中，将容器移离泄漏区。
附加说明	关于安全操作的信息见第 7 部分 关于个人防护设备的信息见第 8 部分 关于处置的信息见第 13 部分

7. 操作和存储

操作

安全操作的信息	避免和皮肤、眼睛、粘膜、衣服接触。 在通风不充分的情况下，使用合适的呼吸设备。 避免产生粉尘和烟雾。
防止爆炸和火灾的信息	远离热源，火源，火花，或明火。

存储

对储藏室和容器的要求	存放在阴凉、干燥、通风良好的地方。 远离火种、热源。防止阳光直射。 使用前保持容器密闭。切勿受潮。
关于储藏在普通存储设施中的信息	应与氧化剂、酸类、食用化学品分开存放，切忌混储。 储区应备有合适的材料收容泄漏物。
关于储藏条件进一步的信息	无其他说明。

8. 暴露控制/人身保护

暴露限值

成分	CAS 号	ACGIH 阈限值-时间加权平均浓度	ACGIH 阈限值-短时间接触限值	NIOSH 阈限值-时间加权平均浓度	NIOSH 阈限值-短时间接触限值
碱式碳酸铜	12069-69-1	1 mg/m^3	N.E.	1 mg/m^3	N.E.

减少接触的工程控制方法	采用局部排气设备或者其他的工程控制措施来保持空气水平低于推荐暴露限值。提供安全淋浴和洗眼设备。
一般保护和卫生措施	不要让该物质与皮肤、衣物、眼睛接触。依据良好的工业卫生和安全条例操作。在休息和一天工作结束前要洗手。
个人防护用品	化学安全眼镜、手套、工作服和防护面罩。
呼吸设备	当工人在高浓度的环境下工作时，必须使用合适的已认证的呼吸器。
双手保护	戴合适的耐化学腐蚀的手套。
眼睛/面部保护	使用带侧罩或安全眼镜的护目镜作为工人长期暴露的机械屏蔽。
身体保护	全套防化学试剂工作服，防护设备的类型必须根据特定工作场所中

的危险物的浓度和含量来选择。

注:1. N.E. 未建立。

9.物理和化学特性

物理状态	细小无定形粉末
颜色	绿色
气味	无数据资料
熔点/凝固点	200 ℃（分解）
沸点或初始沸点和沸程	无数据资料
易燃性	不易燃
上、下爆炸极限/易燃极限	无数据资料
闪点	不适用
自燃温度	无数据资料
分解温度	无数据资料
pH 值	无数据资料
运动粘度	不适用
溶解性	不溶于水，溶于酸、氨水等
分配系数:正辛醇/水（对数值）	无数据资料
蒸汽压	无数据资料
密度和/或相对密度（水=1）	4.0
相对蒸气密度（空气=1）	不适用
颗粒特征	无数据资料

10. 稳定性和反应活性

反应性	可能与强酸、肼发生剧烈反应。
化学稳定性	在要求的贮存条件下稳定。
有害反应的可能性	无数据资料
需避开的条件 (如：静电放电，震动等)	热、火焰和火花。极端的温度和阳光直射。不相容物质。避免粉尘的形成。
不相容的物质	避免和氧化剂、酸类接触。
有害分解产物	铜的氧化物。

11.毒理学信息

进入人体内的途径：皮肤接触、眼睛接触、吸入和摄入。

急性毒性

碱式碳酸铜（CAS 12069-69-1）	LD50（口服，大鼠）：1350 mg/kg LC50（吸入，大鼠）：1.2 mg/L （4h） LD50（皮肤，大鼠）：>2000 mg/kg
皮肤腐蚀/刺激	未分类
严重眼损伤/刺激	造成严重眼刺激。
呼吸或皮肤敏化作用	未分类
生殖细胞致突变性	未分类
致癌性	未分类
生殖毒性	未分类

特定目标器官毒性-单次接触	未分类
特定目标器官毒性-重复接触	未分类
吸入危险	未分类
慢性影响	未分类
其他信息	吸入碳酸铜烟可引起金属烟热。出现肝、肾损害及溶血。长期吸入可引起肺部纤维组织增生。

12. 生态学信息

生态毒性

水生毒性 碱式碳酸铜（CAS 12069-69-1）

测试 & 物种

96 Hr LC50 鱼：未知

72 Hr EC50 藻类：未知

48 Hr EC50 溞类：未知

持久性和降解性	未知
潜在的生物累积性	未知
土壤中的迁移性	未知
其他信息	对水生生物毒性极大且具长期持续影响。 M(长期)=10; M=10

13. 废弃处置

废物处置说明

联系一家有资质的专业废物处置机构来处置。

按照当地的环境法规或地方当局的要求来进行处置。

14. 运输信息

联合国《关于危险货物运输的建议书 规章范本》(TDG)

UN 编号	UN 3077
正式运输名称	对环境有害的固态物质，未另作规定的（碱式碳酸铜）
危险类/项别	第 9 类 杂项危险物质和物品
包装类别	PG III
次要危险性	—
危险性标签	
国际海运危规 IMDG	与 TDG 的分类相同 海洋污染物（是/否）：是
国际空运危规 ICAO-TI 和 IATA-DGR	与 TDG 的分类相同

15. 法规信息

欧洲/国际法规

OSHA (美国职业安全和健康管理法): 危险性根据危害通讯标准来编写 (29CFR 1910.1200).

EINECS (欧洲现有商业化学物质名录):	该化学品已被列入 EINECS 目录中。
EPA TSCA(有毒物质控制法):	该化学品已被列入 TSCA 目录中。
加拿大 DSL(国内物质清单):	该化学品已被列入 DSL 目录中。
HMIS(危险品识别系统):	健康危害：2 易燃性：0 物理危害：0 个人防护：F (4. 极其严重危害; 3. 严重危害; 2. 中度危害; 1. 轻度危害; 0. 极小危害)
WHMIS(加拿大工作场所有害物质识别系统):	D1B, D2B
GB 12268-2012 危险品清单	该化学品作为危险品被列入 GB 12268-2012 危险品清单。

16. 其他信息

雇主只能把本化学品安全数据表的信息当作他们所获其他信息的补充信息，并能独立判断此信息的适用性，以确保正确使用并保护雇员的健康和安全。此化学品安全数据表提供的信息并不具担保作用，任何未按本化学品安全数据表使用产品、或与其他产品和操作过程同时使用本产品时产生的后果由用户自行承担。

本化学品安全数据表是根据《全球化学品统一分类和标签制度》，《联合国关于危险货物运输的建议书》，《国际海运危规》，国际航空运输协会《危险货物规则》和国家标准等相关危险化学品管理法律法规和标准进行编制，而上述法律法规和标准均会定期进行更新和变化。为使危险货物/危险化学品符合相关最新的管理要求，建议定期审核更新化学品安全数据表。

本化学品安全数据表分别以中、英文编制，在对中、英文本的理解上发生歧义时，以中文文本为准。

缩略语	ADR:《关于危险货物道路国际运输的欧洲协议》 RID:《关于危险货物铁路国际运输的规则》 IMDG: 国际海运危规 IATA-DGR: 国际航空运输协会《危险货物规则》(IATA) ICAO-TI: 国际民用航空组织《国际民航公约》(ICAO) EINECS: 欧洲现有商业化学物质名录 CAS: 化学文摘号 LC50: 半数致死浓度 LD50: 半数致死剂量 EC50: 半数效应浓度
编制日期	2024.05.21
更新和修改	第 1 版
编制标准	*全球化学品统一分类和标签制度* 第 1.5 部分
编制机构	杭州海关技术中心