杭州海关技术中心
国家危险化学品检测重点实验室（浙江）
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正本/ORIGIN

编号：TCH23026988
No：TCH23026988
日期：2023-12-15
Date：2023-12-15

ZAIQ-RF(HH)-01-19

Safety Data Sheet

扫描查看在线报告

Applicant name： Hangzhou Fuyang Hongyuan Renewable Resources Co., Ltd.

Product Name: COPPER CHLORIDE BASIC

Edit date: 2023-12-15

Edit institution: Technology Center of Hangzhou Customs District

Approver：

1. Unless other wise stated, this test report is only responsible for the sample(s).
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1. Identification of substance

Product Name	COPPER CHLORIDE BASIC
Other Name	Copper chloride oxide
Chemical Name	$Cl_2Cu.3CuH_2O_2$
Recommended Use	Used as pesticide intermediate, pharmaceutical intermediate, wood preservative, feed additive, etc.
Manufacturer Name	Hangzhou Fuyang Hongyuan Renewable Resources Co., Ltd.
Address	102 Qingquan Road, Xindeng Industrial Park, Fuyang District, Hangzhou City, Zhejiang Province, China. / 311404
Phone Number	+86-0571-6332 5889
Fax Number	+86-0571-6332 5889
WEB or E-mail	alice@hzfyhy.cn
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 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 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 thoroughly after handling. P270:Do not eat, drink or smoke when using this product. P271:Use only outdoors or in a well-ventilated area. P273:Avoid release to the environment.
Precautionary Statement Response	P301+P317:IF SWALLOWED: Get medical help. P304+P340:IF INHALED: Remove person to fresh air and keep comfortable for breathing. P317:Get medical help. P330:Rinse mouth. 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)
COPPER CHLORIDE BASIC	1332-40-7	603-724-0	98

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	First rinse with plenty of water for several minutes (remove contact lenses if easily possible). Assure adequate flushing of the eyes by separating the eyelids with fingers. Get medical attention immediately.
After ingestion	Wash out mouth with water provided person is conscious. Call a physician immediately.
Most important symptoms/effects, acute and delayed	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. Death may occur from shock or renal failure. Chronic copper poisoning is typified by hepatic cirrhosis, brain damage and demyelination, kidney defects, and copper deposition in the cornea as exemplified by humans with Wilson's disease. It has also been reported that copper poisoning has lead to hemolytic anemia and accelerates arteriosclerosis. Symptoms observed shortly before death were: Shock., renal failure. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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	Not flammable. Thermal decomposition can lead to the release of irritating gases and vapors (copper oxides, chlorine, hydrogen chloride gases). Do not allow the runoff from firefighting to enter the sewer or waterway.
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	Pick up and arrange disposal in suitable container. Avoid dust generation. Clean contaminated surface thoroughly.
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. Ensure that there is good ventilation or exhaust system in the workplace. 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	Store in a cool, dry, and well ventilated place. Stay away from sparks and heat sources. Prevent direct sunlight. Keep the container sealed before use. Ensure that there is good ventilation or exhaust system in the workplace. It should be stored separately from strong oxidants, alkali metals, etc., and should not be stored together.

Information about storage in one common storage facility	Stay away from incompatible substances such as strong oxidants, alkali metals, etc.
	Avoid dampness.
Further information about storage conditions	The storage area should be equipped with suitable materials to contain the leakage.

8. Exposure controls/personal protection

Limit Values for Exposure

Component	**CAS number**	**ACGIH TLV-TWA**	**ACGIH TLV-STEL**	**NIOSH PEL-TWA**	**NIOSH PEL-STEL**
COPPER CHLORIDE BASIC	1332-40-7	0.2 mg/m³ (Copper Fume)	N.E.	N.E.	N.E.

Appropriate engineering controls	Use adequate ventilation to keep airborne concentrations low. Facilities storing or utilizing this material should be equipped with an eyewash and a safety shower 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	Powder
Colour	Green or blue-green
Odour	No data available
Melting point/freezing point	140 ℃
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	140 ℃
pH	No data available
Kinematic viscosity	Not applicable
Solubility	No data available
Partition coefficient: n-octanol/water(log value)	No data available
Vapour pressure	No data available
Density and/or relative density	No data available
Relative vapour density (air=1)	Not applicable
Particle characteristics	No data available

10. Stability and reactivity

Reactivity	No data available.
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 strong oxidants, alkali metals, etc.
Hazardous decomposition products	May include chlorine, hydrogen chloride, and copper oxides.

11.Toxicological information

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

Acute Toxicity	
COPPER CHLORIDE BASIC (CAS 1332-40-7)	LD50 (Oral, rat-male): 1796 mg/kg EC50 (Inhalation, Rat): 2.83 mg/L (4h) LD50 (Dermal, rat): ＞2000 mg/kg
Skin corrosion/Irritation	Not classified
Serious eye damage/irritation	Not classified
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	No data

12. Ecological information

Ecotoxicity

Aquatic Toxicity — COPPER CHLORIDE BASIC (CAS 1332-40-7)

Test & Species
96 Hr LC50 fish: N/A
48 Hr EC50 Daphnia: 0.5 mg/L
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.

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. (Copper oxychloride)
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:	COPPER CHLORIDE BASIC (CAS 1332-40-7) is not included in EINECS inventory.
EPA TSCA Status:	COPPER CHLORIDE BASIC (CAS 1332-40-7) is not included in TSCA inventory.
Canadian DSL/NDSL (Domestic Substances List/ Non-domestic Substances List):	COPPER CHLORIDE BASIC (CAS 1332-40-7) is not included in DSL/NDSL.
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):	Not listed.
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	15.12.2023
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

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扫描查看在线报告

化学品安全数据表

申请单位：杭州富阳鸿源再生资源利用有限公司

产品名称：碱式氯化铜

编制日期：2023-12-15

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。
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1. 标识

产品名称	碱式氯化铜
其他名称	氧氯化铜
化学名称	碱式氯化铜
使用建议	用作农药中间体、医药中间体、木材防腐剂、饲料添加剂等
生产商	杭州富阳鸿源再生资源利用有限公司
地址	浙江省杭州市富阳区新登工业园区清泉路 102 号/311404
固定电话	+86-0571-6332 5889
传真	+86-0571-6332 5889
网址或电子邮件地址	alice@hzfyhy.cn
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 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 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/烟雾/蒸汽/喷雾 P264:作业后彻底清洗双手 P270:使用本产品时，不要进食、饮水或吸烟 P271:只能在室外或通风良好处使用 P273:避免释放到环境中
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 P317:寻求医疗救助。 P330:漱口 P391:收集溢出物
防范说明 贮存	无
防范说明 处置	P501:依据地方法规处置内装物/容器
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)**
碱式氯化铜	1332-40-7	603-724-0	98

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	先用大量水冲洗几分钟（如可能易行，取下隐形眼镜）。用手指分开眼睑以保证充分冲洗眼睛。马上就医。
摄入后	如果有意识，用水漱口。立即就医。
主要的症状和影响，包括急性和迟发效应	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。死亡之前的症状是：休克，肾衰竭。 据我们所知，此化学，物理和毒性性质尚未经完整的研究。

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气体和蒸汽的释放（铜的氧化物，氯，氯化氢气体）。不要让灭火的径流进入下水道或水道。
防护设备	在上风处灭火，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	收集并把废弃物放置在合适的容器中。避免灰尘生成。彻底清洁被污染物的表面。
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。 确保工作间有良好的通风或排气装置。避免产生粉尘和烟雾。 在通风不充分的情况下，使用合适的呼吸设备。
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。 确保工作间有良好的通风或排气装置。 应与强氧化剂，碱金属等分开存放，切忌混储。
关于储藏在普通存储设施中的信息	远离不相容的物质如强氧化剂，碱金属等。 防潮。
关于储藏条件进一步的信息	储区应备有合适的材料收容泄漏物。

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
碱式氯化铜	1332-40-7	0.2 mg/m³ （铜烟雾）	N.E.	N.E.	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。储存和使用该材料区域应配备一个洗眼器和一个安全淋浴设施。
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	粉末
颜色	绿色或蓝绿色
气味	无数据资料
熔点/凝固点	140 ℃
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	140 ℃
pH 值	无数据资料
运动粘度	不适用
溶解性	无数据资料
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	无数据资料
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	无数据资料。
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	避免和强氧化剂，碱金属等接触。
有害分解产物	可能包括氯，氯化氢，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

碱式氯化铜	LD50（口服，大鼠-雄性）：1796 mg/kg
（CAS 1332-40-7）	LC50（吸入，大鼠）：2.83 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	未分类
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	无

12. 生态学信息

生态毒性

水生毒性 碱式氯化铜（CAS 1332-40-7）

测试 & 物种

96 Hr LC50 鱼:未知

48 Hr EC50 溞类:0.5 mg/L

72 Hr EC50 藻类: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。

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	对环境有危害的固态物质，未另作规定（碱式氯化铜）
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):	碱式氯化铜（CAS 1332-40-7）未被列入 EINECS 目录中。
EPA TSCA(有毒物质控制法):	碱式氯化铜（CAS 1332-40-7）未被列入 TSCA 目录中。
加拿大 DSL/NDSL(国内物质清单)/ (非国内物质清单):	碱式氯化铜（CAS 1332-40-7）未被列入 DSL/NDSL 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):	未列入。
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	2023.12.15
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