

编 码:

产品名称: 硫酸铜



警 告

放在儿童伸手不及之处

使用前请读标签

吞咽有害。造成皮肤刺激。造成严重眼刺激。可能引起皮肤过敏反应。长期或重复接触可能损害器官（影响器官：肾，影响途径：经口）。对水生生物毒性极大并具有长期持续影响。

预防:

作业后彻底清洗。使用本产品时不要进食、饮水或吸烟。戴防护手套/穿防护服/戴防护眼罩/戴防护面具。避免吸入粉尘/烟/烟雾。受沾染的工作服不得带出工作场地。避免释放到环境中。

反应:

如误吞咽：如感觉不适，呼叫解毒中心或医生。漱口。如皮肤沾染：用大量肥皂和水清洗。具体治疗（见安全数据单）。如发生皮肤刺激：求医/就诊。具体治疗（见安全数据单）。脱掉沾染的衣服清洗后方可重新使用。如进入眼睛：用水小心冲洗几分钟。如戴隐形眼镜并可方便地取出，取出隐形眼镜。继续冲洗。如仍觉眼刺激：求医/就诊。如感觉不适，须求医/就诊。收集溢出物。

贮存:

/

处置:

按照相关规定处置内装物和容器。

CODE:

PRODUCT NAME: Cupric sulfate



Warning

Keep out of the reach of children.

Read label before use.

Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause damage to organs through prolonged or repeated exposure (Kidney, oral). Very toxic to aquatic life with long lasting effects.

Prevention: Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/mist. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.

Response: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of water. Specific treatment(see safety data sheet). If skin irritation occurs: Get medical advice/attention. Specific treatment(see safety data sheet). Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Get medical advice/attention if you feel unwell. Collect spillage.

Storage: /

Disposal: Dispose of contents/container in accordance with relevant regulations.

化学品安全数据单

一、标识

全球统一制度产品标识符：硫酸铜/ Copper sulfate。

其它标识办法：/

化学品使用建议和使用限制：/

供货商的详细情况：

紧急电话号码：/

二、危险标识

物质或混合物的分类：

急毒性（口服）类别 4，皮肤腐蚀/刺激类别 2，严重眼损伤/眼刺激类别 2A，皮肤致敏作用类别 1，特定目标器官毒性——重复接触类别 2（影响器官：肾，影响途径：经口），危害水生环境（急性）类别 1，危害水生环境（长期）类别 1。

全球统一制度标签要素，包括防范说明：



信号词：警告。

危险说明：吞咽有害。造成皮肤刺激。造成严重眼刺激。可能引起皮肤过敏反应。长期或重复接触可能损害器官（影响器官：肾，影响途径：经口）。对水生生物毒性极大并具有长期持续影响。

防范说明：

预防：作业后彻底清洗。使用本产品时不要进食、饮水或吸烟。戴防护手套/穿防护服/戴防护眼罩/戴防护面具。避免吸入粉尘/烟/烟雾。受污染的工作服不得带出工作场地。避免释放到环境中。

应急：如误吞咽：如感觉不适，呼叫解毒中心或医生。漱口。如皮肤沾染：用大量肥皂和水清洗。具体治疗（见安全数据单）。如发生皮肤刺激：求医/就诊。具体治疗（见安全数据单）。脱掉沾染的衣服清洗后方可重新使用。如进入眼睛：用水小心冲洗几分钟。如戴隐形眼镜并可方便地取出，取出隐形眼镜。继续冲洗。如仍觉眼刺激：求医/就诊。如感觉不适，须求医/就诊。收集溢出物。

贮存：/。

处置：按照相关规定处置内装物和容器。

不导致分类的其他危险：/

三、组成/成分信息

化学名称	化学文摘社编号（CAS No.）	成分（由送检企业提供）
硫酸铜	7758-99-8	100%

四、急救措施

不同暴露途径的急救方法

吸入：如果吸入，请将患者移到新鲜空气处。躺卧，注意休息和保暖。尽可能地在开始急救之前取出假牙等假体，以防堵塞呼吸道。如果呼吸停止，要进行人工呼吸，最好是带有截止阀型或袋式阀面罩型或袖珍面罩型的人工呼吸器。就医。

皮肤接触：用肥皂和大量的水冲洗。就医。

眼睛接触：立即将眼睑扒开，用流动清水不断地进行冲洗。用大量水彻底冲洗至少 15 分钟。就医。

摄入：切勿给失去知觉者从嘴里喂食任何东西。用水漱口。就医。

最重要的急性和延迟症状/效应：中枢神经系统机能降低，昏睡，麻醉，贫血。

必要时注明立即就医及所需的特殊治疗： /。

五、消防措施

适当的灭火剂：用喷水或水雾、泡沫、化学干粉或二氧化碳等灭火。

化学品产生的具体危险：不易燃。分解有可能产生有毒烟气。

消防人员的特殊防护行动：仅在火灾时，佩戴呼吸设备及防护手套。从有防护的位置喷水以便冷却暴露于火灾中的容器。不要靠近可能灼热的容器。安全条件下，将容器从火场中移走。

六、意外释放措施

人身防范、保护设备和应急程序：立即清理所有泄漏物。防止接触皮肤和眼睛。采用防护设备以控制人员接触。通过穿防护服以控制人员接触。

环境防范措施：采取一切可能的措施防止溢出物进入下水道或水道。利用干燥清理流程，并避免产生粉尘。

抑制和清洁的方法和材料：如果可能，尽量回收产品。如果物品干燥：采用干燥清理流程，避免产生粉尘。将收集的残留物放入密封的塑料袋或其它容器，以便废弃处置。如果物品潮湿：用吸尘器或铲子收集，放入贴有标签的容器，以便废弃处置。在任何情况下：用大量的水冲洗地面，防止流入下水道。

七、搬运与储存

安全搬运的防范措施：防止所有个体接触，包括吸入。当有接触危险时，穿戴防护服。在通风良好的区域使用本物质。防止本品在坑凹处汇集。在未作空气检测之前，不得进入封闭空间内。要严格防止物质接触人体、裸露食品或食品器具。操作处置时，禁止饮食或吸烟。进行操作处置活动后，无例外地要用肥皂和清水洗手。

安全存储的条件，包括任何不相容性：储存于原装容器中。切勿使用铝制容器或镀锌容器。保持容器严实密封。储存在阴凉、干燥、通风良好的地方。存储于远离不相容材料和食品容器的地方。防止容器受到物理损伤，并定期检查泄漏。遵从制造商储存和处理方面的建议。

八、接触控制/人身保护

控制参数：

紧急限制

成分	TEEL-0	TEEL-1	TEEL-2	TEEL-3
硫酸铜	0.393(ppm)	1.18(ppm)	150(ppm)	200(ppm)

适当的工程控制：一般需要采取局部通风。如果有过度接触本物质的危险，佩戴认可的呼吸器。呼吸器的大小必须适中才能取得充足保护。在特殊情况下，可能需要使用供气式呼吸器。

个人防护措施

防护眼罩/面具：有侧框保护的安全护目镜。化学护目镜。隐形眼镜可能会造成特殊危害；软性隐形眼镜可能会吸收和富集刺激物。

皮肤防护：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数量来选择。

呼吸系统防护：呼吸器种类和型号的选择取决于呼吸区域污染物的等级以及污染物的化学性质。

高温危险： /

九、物理及化学性质

外观（物理状态、颜色等）	蓝色晶体粉末。
气味	/
气味阈值	/
pH 值	4
熔点/凝固点	110℃
初始沸点和沸腾范围	/
闪点	/
蒸发速率	/
易燃性（固态、气态）	/
上下易燃极限或爆炸极限	/
蒸气压力	9.7 hPa 在 25 ° C
蒸气密度(空气=1)	/
相对密度(水= 1)	2.29
可溶性	混溶
分配系数：正辛醇/水	/
自动点火温度	/
分解温度	/
粘度	/

十、稳定及反应性

反应性： /

化学稳定性：物质被认为具有稳定性。

危险反应的可能性：不会发生危害性的聚合反应。

应避免的条件：高温、明火、点火源等。避免接触强碱。

不相容材料：强还原剂。

危险分解产物：硫的氧化物、氧化铜。

十一、毒理学信息

暴露途径：吸入、食入、经皮吸收、眼睛接触。

有关物理、化学和毒理学特点的症状： /

急性毒性效应：吸入可能有害。可能引起呼吸道刺激。如服入是有害的。通过皮肤吸收可能是有害的。可能引起皮肤刺激。造成严重眼刺激。

慢性毒性或长期毒性效应：长期或多次接触会导致皮肤干裂、刺激，随后可能会导致皮炎。反复或长期职业接触可能会产生涉及器官或生化系统累积性的健康影响。

毒性的数值度量（如急性毒性估计值）：Oral (rat) LD50: 960 mg/kg。

十二、生态信息

毒性：对水生生物毒性极大并具有长期持续影响。

持久性和降解性： /

生物累积潜力： /

在土壤中的流动性： /

其它有害效应： /

十三、处置考虑

处置方法：如果容器不能通过彻底清洗来保证无任何杂质残留，或者该容器不能再被用于储存相同产品，则刺穿容器，避免重复使用，并在有资质的填埋场填埋。尽可能进行回收，或咨询制造商有关回收的方法。将残留物掩埋在批准的填埋处。如有可能，回收容器，或在认可的填埋处进行废弃处理。

十四、运输信息

联合国编号： 3077。

联合国正式运输名称： 对环境有害的固态物质，未另作规定的。

运输危险分类： 9。

包装类别（如果适用）： III。

环境危险： 海洋污染物。

用户的特殊防范措施： /

十五、管理信息

国内化学品安全法规：本化学品安全数据单遵照了以下相关国家标准：GB 16483-2008、GB 13690-2009、GB 6944-2012、GB/T 15098-2008、GB 18218-2009、GB 15258-2009、GB 190-2009、GB 191-2009、GB 12268-2008、GA 57-1993、GBZ 2-2007 以及相关法规：《铁路危险货物运输管理规则》、《危险化学品安全管理条例》。

十六、其它信息

参考文献	联合国《关于危险货物运输的建议书·规章范本》 联合国《全球化学品统一分类和标签制度》
制表日期	2014-03-05

注 1：当产品为含有两种以上危险物质的混合物时，应依据其混合后的危险性，制作安全数据单。

注 2：制造商/供应商应根据实际情况确保安全数据单所含信息的正确性，并适时更新。

注 3：如由于产品特性而不存在或不可得某些信息时（如固体不存在沸点），应在表格中以“/”标识。

Chemical Safety Data Sheet

Section 1 IDENTIFICATION

GHS Product identifier: Cupric sulfate.

Other means of identification: /

Recommended use of the chemical and restrictions on use: /

Supplier's details: /

Emergency phone number: /

Section 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Acute Toxicity (Oral) Category 4, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Sensitization - skin Category 1, Specific target organ toxicity (repeated exposure) Category 2 (Kidney, oral), Aquatic toxicity (Acute) Category 1, Aquatic toxicity (Chronic) Category 1.

GHS Label elements, including precautionary statements:



Signal word: Warning.

Hazard statement(s): Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause damage to organs through prolonged or repeated exposure (Kidney, oral). Very toxic to aquatic life with long lasting effects.

Precautionary statement(s):

Prevention: Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/mist. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.

Response: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of water. Specific treatment(see safety data sheet). If skin irritation occurs: Get medical advice/attention. Specific treatment(see safety data sheet). Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Get medical advice/attention if you feel unwell. Collect spillage.

Storage: /.

Disposal: Dispose of contents/container in accordance with relevant regulations. .

Other hazards which do not result in classification: /

Section 3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration%
Copper sulfate	7758-99-8	100

Section 4 FIRST AID MEASURES

Description of necessary first aid measures

If inhaled: If breathed in, move person into fresh air. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Immediately hold eyelids apart and flush the eye continuously with running water. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms/effects, acute and delayed: Central nervous system depression, Drowsiness, narcosis, anemia.

Indication of immediate medical attention and special treatment needed, if necessary: / 。

Section 5 FIREFIGHTING MEASURES

Suitable extinguishing media: Using water spray or fog, Foam, Dry chemical powder, Carbon dioxide.

Special hazards arising from the chemical: Non combustible. Decomposition may produce toxic fumes.

Special protective actions for fire-fighters: Wear breathing apparatus plus protective gloves in the event of a fire. Cool fire exposed containers with water spray from a protected location. DO NOT approach containers suspected to be hot. If safe to do so, remove containers from path of fire.

Section 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Clean up all spills immediately. Avoid contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Control personal contact by wearing protective clothing.

Environmental precautions: Prevent, by any means available, spillage from entering drains or water courses. Use dry clean up procedures and avoid generating dust.

Methods and materials for containment and cleaning up: Recover product wherever possible. IF DRY: Use dry clean up procedures and avoid generating dust. Collect residues and place in sealed plastic bags or other containers for disposal. IF WET: Vacuum/shovel up and place in labelled containers for disposal. ALWAYS: Wash area down with large amounts of water and prevent runoff into drains.

Section 7 HANDLING AND STORAGE

Precautions for safe handling: Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. DO NOT allow material to contact humans, exposed food or food utensils. When handling, DO NOT eat, drink or smoke. Always wash hands with soap and water after handling.

Conditions for safe storage, including any incompatibilities: Store in original containers. DO NOT use aluminium or galvanised containers. Keep containers securely sealed. Store in a cool, dry area

protected from environmental extremes. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations.

Section 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

EMERGENCY LIMITS

Ingredient	TEEL-0	TEEL-1	TEEL-2	TEEL-3
Copper sulfate	0.393(ppm)	1.18(ppm)	150(ppm)	200(ppm)

Appropriate engineering controls: Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances.

Individual protection measures

Eye/face protection: Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.

Skin protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

Respiratory protection: Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant.

Thermal hazards: /

Section 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, colour etc)	blue crystalline powder
Odour	/
Odour Threshold	/
pH	4
Melting point/freezing point	110°C
Initial boiling point and boiling range	/
Flash point	/
Evaporation rate	/
Flammability (solid, gas)	/
Upper/lower flammability or explosive limits	/
Vapour pressure	9.7 hPa
Vapour density (air=1)	/
Relative density (water=1)	2.29
Solubility(ies)	miscible
Partition coefficient: n-octanol/water	/
Auto-ignition temperature	/
Decomposition temperature	/
Viscosity	/

Section 10 STABILITY AND REACTIVITY

Reactivity: /

Chemical stability: Presence of incompatible materials.

Possibility of hazardous reactions: Hazardous polymerisation will not occur.

Conditions to avoid: Heat, flames and sparks. Avoid strong bases.

Incompatible materials: Strong reducing agents.

Hazardous decomposition products: sulfur oxides, cupric oxide.

Section 11 TOXICOLOGICAL INFORMATION

Information on the likely routes of exposure: Inhaled, swallowed, skin, eyes.

Symptoms related to the physical, chemical and toxicological characteristics: /

Acute health effects: May be harmful if inhaled. May cause respiratory tract irritation. May be harmful if swallowed. May be harmful if absorbed through skin. May cause skin irritation. Causes serious eye irritation.

Chronic health effects: Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

Numerical measures of toxicity(such as acute toxicity estimates): Oral (rat) LD50: 960 mg/kg.

Section 12 ECOLOGICAL INFORMATION

Toxicity: Very toxic to aquatic life with long lasting effects.

Persistence and degradability: /

Bioaccumulative potential: /

Mobility in soil: /

Other adverse effects: /

Section 13 DISPOSAL CONSIDERATIONS

Disposal methods: If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Recycle wherever possible or consult manufacturer for recycling options. Bury residue in an authorised landfill. Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 TRANSPORT INFORMATION

UN number: 3077.

UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Transport hazard class(es) :9.

Packing group, if applicable:III.

Environmental hazards: Marine pollutant.

Special precautions for user: /

Section 15 REGULATORY INFORMATION

Regulations: This safety data sheet is in compliance with the following national standards: GB 16483-2008, GB 13690-2009, GB/T 15098-2008, GB 18218-2009, GB 15258-2009, GB 6944-2012, GB 190-2009, GB 191-2009, GB 12268-2008, GA 57-1993, GBZ 2-2007 as well as the following national regulations: Dangerous Goods Transport Administrative Regulation [Published by the Ministry of Railways, 2008], Dangerous Chemicals Safety Administrative Regulation [Published by the State Council, 2011].

Section 16 OTHER INFORMATION

References	UN Recommendations on the Transport of Dangerous Goods Model Regulations UN Globally Harmonized System of Classification and Labelling of Chemicals
Form Date	05-Mar.-2014

Note 1: When products contain two or more hazardous substances, Safety Data Sheets should be prepared based on the risk of the mixture.

Note 2: Manufacturer / supplier should ensure the correctness of the information contained in the safety data sheets, and updated in a timely manner.

Note 3: As a result of product features without the existence of certain information or no data available (such as boiling point does not exist for the solid) in the table with "/" logo.



对环境有害的固态物质，未另
作规定的（硫酸铜）

ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
SOLID, N. O. S (Copper sulfat e)

UN 3077