

编 码:

产品名称: 高纯氧



危险

可能导致或加剧燃烧: 氧化剂。内装高压气体: 遇热可能爆炸。

预防:

避开/贮存处远离服装/……/ 可燃材料。阀门及紧固装置不得带有油脂或油剂。

反应:

火灾时: 如能保证安全, 可设法堵塞泄漏。

储存

存放在通风良好的地方。防日晒。

处置:

CODE:

PRODUCT NAME: Oxygen



Danger

May cause or intensify fire; oxidizer. Contains gas under pressure; may explode if heated.

Prevention:

Keep/Store away from clothing/combustible materials. Keep valves and fittings free from oil and grease.

Response:

In case of fire: Stop leak if safe to do so.

Storage

Store in well-ventilated place. Protect from sunlight.

Disposal:

化学品安全数据单

一、标识

全球统一制度产品标识符：高纯氧/ Oxygen。

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：

高压气体（压缩气体）、氧化性气体类别 1。

全球统一制度标签要素，包括防范说明：



信号词：危险。

危险说明：可能导致或加剧燃烧：氧化剂。内装高压气体：遇热可能爆炸。

防范说明：

预防：

避开/贮存处远离服装/……/ 可燃材料。阀门及紧固装置不得带有油脂或油剂。

反应：

火灾时：如能保证安全，可设法堵塞泄漏。

储存

存放在通风良好的地方。防日晒。

处置：

不导致分类的其他危险： /

三、组成/成分信息

| 化学名称 | 化学文摘社登记号码 (CAS No.) | 含量% |
|------|---------------------|---------|
| 氧气 | 7782-44-7 | 99.9995 |

四、急救措施

必要的急救措施

吸入：如果吸入,请将患者移到新鲜空气处。如果停止了呼吸，给予人工呼吸。求医。

皮肤接触：用肥皂和大量的水冲洗。

眼睛接触：撑开眼睑，让物质蒸发。用大量水彻底冲洗至少 15 分钟。就医。

食入：不认为是一种正常的接触途径。

最重要的急性和延迟症状/效应： /

必要时注明立即就医及所需的特殊治疗： /

五、消防措施

适当的灭火介质：对于小火：用大量的水。禁止用化学干粉，CO₂(二氧化碳)或泡沫。对于大火： 从有保护的的位置用大量水覆盖火灾区。

化学品产生的具体危险：物质含有氧化剂。供氧使火势加强并让火焰自身维持。闷熄方法对已发火灾可能无效。高热可引起爆炸。由于有复燃的可能性，灭火后必须对残留物进行完全冷却才能接近。排出的气体比空气重，可能汇集于坑凹处和地下室。

消防人员的特殊防护行为：穿戴呼吸设备和防护手套。在安全距离处、有充足防护的情况下灭火。喷水雾以控制火势，并冷却相邻区域。严禁接触怀疑为热的钢瓶。从安全防护场所喷水冷却接触火场的钢瓶。在安全的条件下，将钢瓶从火道中转移走。接触火场的气体钢瓶内可发生超压；从而引起爆炸。带有压力安全装置的钢瓶，遇火可能会释放出它们的盛装物，释放出的气体对消防人员可能构成进一步的危害。未带压力安全阀的钢瓶，不能控制其盛装物的释放，因此遇火时更容易发生爆炸。

六、意外释放措施

人身防范、保护设备和应急程序：防止吸入蒸气，防止接触液体或气体。使用防护设备，包括呼吸器。禁止进入气体可能汇集的局限空间。增强通风。

环境防范措施：只能在安全的情况下阻止泄漏。

抑制和清理的方法和材料：可以喷水或水雾来驱散蒸气。禁止进入气体可能汇集的局限空间。疏散场所内的所有人员，直至气体分散。将泄漏的钢瓶或气罐转移至安全的地方。安装通风管道。在安全可控制的情况下，释放钢瓶压力。

七、搬运与储存

安全搬运的防范措施：考虑在密闭的压力系统中使用，这些系统应该带有温度、压力和安全释放阀，这些阀门应通气，以保证安全的排放。定期检查泄漏和漏洞。保持阀门密闭，但不要对手轮或钢瓶楔施加更大的杠杆作用力。用刷子和洗涤剂检测漏洞 — 严格禁止使用明火检测。必要时，可以将松动的压紧螺母旋紧。如果钢瓶阀门不能完全关闭，将钢瓶转移至通风良好处(如室外)。钢瓶排空后，打上“缺陷”标记，返回给供应商。

安全存储的条件，包括任何不相容性：钢瓶应存放在专门建造的储存场所，并保持良好通风，最好在室外开阔场所。储存场所的选址和建造应遵循相关法令的要求。储存场所应保持空旷无人，只有授权人员才可入内。户外开阔场所存放的钢瓶，应对生锈或接触恶劣天气采取保护措施。存放的钢瓶应正确固定，以防止倾倒或滚动。不使用时，钢瓶阀门应保持关闭状态。当钢瓶带有阀门防护设备时，这些设备应在适当的位置而正确固定。满装的钢瓶和空的钢瓶最好分开存放。在进入储存场所之前，应检查场所内的气体是否达到危害性浓度。对满装钢瓶的存放应进行安排，使存放时间最长的钢瓶最先被使用。应定期检查储存钢瓶的一般状况和泄漏情况。防止钢瓶受到物理损伤。人工搬运钢瓶时，应按照指导进行正确的移动和储存。

八、接触控制/人身保护

控制参数： /

适当的工程控制：储存钢瓶的区域需要良好的通风条件，如果是封闭区域，需要采用分立的/控制的排气通风设备。

个人保护措施

防护眼罩/面具：带侧边的安全护目镜。化学护目镜。隐形眼镜可能会造成一种特殊危害；软的隐形眼镜可能会吸收和富集刺激物。

皮肤防护：当处理密封的容器时应戴布的或皮革手套。

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） | 压缩气体 |
| 气味 | / |
| 气味阈值 | / |
| pH 值 | / |
| 熔点/凝固点 | / |
| 初始沸点和沸腾范围 | -183 ℃ |
| 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(kPa) | / |
| 蒸气密度（空气=1） | 1.105 |
| 相对密度 | / |
| 可溶性 | 部分混溶 |
| 分配系数：n-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：物质是稳定的。

危险反应的可能性：无机氧化剂与还原剂能发生反应，放出热量并生成气态产品(能导致密闭容器压力增加)。产品能自发性进行进一步反应(如在空气中燃烧)。有机化合物通常都有一定的还原能力，它们原则上能与本类化合物发生反应。无机氧化剂能与活泼金属、氰化物、酯类和硫氰酸盐（酯）发生剧烈的反应。

应避免的条件：高温、热源等。

不相容材料：还原剂。易可燃物。

危险分解产物：/

十一、毒理学信息

暴露途径：吸入、经口、皮肤、眼睛。

有关物理、化学和毒理学特点的症状：/

急性毒性效应：

吸入：有证据表明，本物质能够对某些人造成呼吸道刺激。

食入：由于产品的物理状态，一般没有危害。

皮肤：不认为接触该物质后产生对健康有害的影响或皮肤刺激。

眼睛：由于气体极易挥发，不认为本物质具有危险性。

慢性毒性或长期毒性效应：/

毒性的数值度量（如急性毒性估计值）：/

十二、生态信息

毒性：/
持久性及降解性：/
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： 在规定的地方蒸发残留物。把空的容器退还给供应商。保证受损的或不再使用的容器在废弃处置前完全排空气体。

十四、运输信息

联合国编号：1072。
联合国运输名称：压缩氧。
运输危险种类：2.2+5.1。
包装类别：/
环境危害：/
使用者的特殊防范措施：/

十五、管理信息

国内化学品安全管理法规：
本化学品安全技术说明书遵照了以下相关国家标准：GB16483-2008, GB13690-2009, GB18218-2009, GB15258-2009, GB6944-2012, GB190-2009, GB191-2009, GB12268-2008, GA57-1993, GB/T 15098-2008, GBZ 2-2007以及相关法规：《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 | 2015年08月06日 |

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: Oxygen.

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

Oxidizing Gas Category 1, Gas under Pressure (Compressed gas).

GHS Label elements, including precautionary statements



Signal word: Danger

Hazard statement(s): May cause or intensify fire; oxidizer. Contains gas under pressure; may explode if heated.

Precautionary statement(s):

Prevention:

Keep/Store away from clothing/combustible materials. Keep valves and fittings free from oil and grease.

Response:

In case of fire: Stop leak if safe to do so.

Storage:

Store in well-ventilated place. Protect from sunlight.

Disposal:

Other hazards which do not result in classification: /

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No. | Concentration% |
|---------------|-----------|----------------|
| Oxygen | 7782-44-7 | 99.9995 |

SECTION 4 FIRST AID MEASURES

Description of necessary first aid measures

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

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

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed: Not considered a normal route of entry.

Most important symptoms and effects, both acute and delayed: /

Indication of immediate medical attention and special treatment needed: /

SECTION 5 FIREFIGHTING MEASURES

Suitable extinguishing media: FOR SMALL FIRE: USE FLOODING QUANTITIES OF WATER. DO NOT use dry chemical, CO₂, foam or halogenated-type extinguishers. FOR LARGE FIRE: Flood fire area with water from a protected position

Special hazards arising from the chemical: The material may provide sufficient oxygen to make the fire fierce and self sustaining. Smothering action may not be effective for established fire. Intense heat may cause detonation. Due to possibility of reignition, extinguished residues must be thoroughly cooled before approaching. Vented gas is more dense than air and may collect in pits, basements.

Special protective actions for fire-fighters: Wear breathing apparatus and protective gloves. Fight fire from a safe distance, with adequate cover. Use water delivered as a fine spray to control fire and cool adjacent area. DO NOT approach cylinders suspected to be hot. Cool fire exposed cylinders with water spray from a protected location. If safe to do so, remove cylinders from path of fire. Excessive pressures may develop in a gas cylinder exposed in a fire; this may result in explosion. Cylinders with pressure relief devices may release their contents as a result of fire and the released gas may constitute a further source of hazard for the fire-fighter. Cylinders without pressure-relief valves have no provision for controlled release and are therefore more likely to explode if exposed to fire.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Avoid breathing vapour and any contact with liquid or gas. Protective equipment including respirator should be used. DO NOT enter confined spaces where gas may have accumulated. Increase ventilation.

Environmental precautions: Stop leak if safe to do so.

Methods and materials for containment and cleaning up: Water spray or fog may be used to disperse vapour. DO NOT enter confined space where gas may have collected. Keep area clear until gas has dispersed. Remove leaking cylinders to a safe place. Fit vent pipes. Release pressure under safe, controlled conditions

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling: Consider use in closed pressurised systems, fitted with temperature, pressure and safety relief valves which are vented for safe dispersal. Check regularly for spills or leaks. Keep valves tightly closed but do not apply extra leverage to hand wheels or cylinder keys. Test for leakage with brush and detergent - NEVER use a naked flame. Leaking gland nuts may be tightened if necessary.

If a cylinder valve will not close completely, remove the cylinder to a well ventilated location (e.g. outside) and, when empty, tag as FAULTY and return to supplier.

Conditions for safe storage, including any incompatibilities: Cylinders should be stored in a purpose-built compound with good ventilation, preferably in the open. Such compounds should be sited and built in accordance with statutory requirements. The storage compound should be kept clear and access restricted to authorised personnel only. Cylinders stored in the open should be protected against rust and extremes of weather. Cylinders in storage should be properly secured to prevent toppling or rolling. Cylinder valves should be closed when not in use. Where cylinders are fitted with valve protection this should be in place and properly secured. Gas cylinders should be segregated according to the requirements of the Dangerous Goods Act. Preferably store full and empty cylinders separately. Check storage areas for hazardous concentrations of gases prior to entry. Full cylinders should be arranged so that the oldest stock is used first. Cylinders in storage should be checked periodically for general condition and leakage. Protect cylinders against physical damage. Move and store cylinders correctly as instructed for their manual

handling.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters: /

Appropriate engineering controls: Areas where cylinders are stored require good ventilation and, if enclosed, need discrete/controlled exhaust ventilation.

Personal protective equipment

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: When handling sealed and suitably insulated cylinders wear cloth or leather gloves.

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 | Compressed Gas |
| Odour | / |
| Odour Threshold | / |
| pH | / |
| Melting point/freezing point | / |
| Initial boiling point and boiling range | -183 °C |
| Flash point | / |
| Evaporation rate | / |
| Flammability (solid, gas) | / |
| Upper/lower flammability or explosive limits | / |
| Vapour pressure | / |
| Vapour density | 1.105 |
| Relative density | / |
| Water solubility | Partly miscible |
| Partition coefficient: octanol/water | / |
| Autoignition temperature | / |
| Decomposition temperature | / |
| Viscosity | / |

SECTION 10 STABILITY AND REACTIVITY

Reactivity: /

Chemical stability: Product is considered stable.

Possibility of hazardous reactions: Inorganic oxidising agents can react with reducing agents to generate heat and products that may be gaseous (causing pressurization of closed containers). The products may themselves be capable of further reactions (such as combustion in the air). Organic compounds in general have some reducing power and can in principle react with compounds in this class. Actual reactivity varies greatly with the identity of the organic compound. Inorganic oxidising agents can react violently with active metals, cyanides, esters, and thiocyanates.

Conditions to avoid: Heat, flames.

Incompatible materials: Reducing agents, combustible materials.

Hazardous decomposition products: /

SECTION 11 TOXICOLOGICAL INFORMATION

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

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

Acute health effects

Inhalation: Limited evidence or practical experience suggests that the material may produce irritation of the respiratory system, in a significant number of individuals, following inhalation.

Ingestion: Not normally a hazard due to physical form of product.

Skin: The material is not thought to produce adverse health effects or skin irritation following contact.

Eyes: Direct contact with the eye may not cause irritation because of the extreme volatility of the gas.

Chronic health effects: /

Numerical measures of toxicity (such as acute toxicity estimates): /

SECTION 12 ECOLOGICAL INFORMATION

Toxicity: /

Persistence and degradability: /

Bioaccumulative potential: /

Mobility in soil: /

Other adverse effects: /

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal methods: Evaporate residue at an approved site. Return empty containers to supplier. If containers are marked non-returnable establish means of disposal with manufacturer prior to purchase. Ensure damaged or non-returnable cylinders are gas-free before disposal.

SECTION 14 TRANSPORT INFORMATION

UN number: 1072.

UN proper shipping name: OXYGEN, COMPRESSED.

Transport hazard class(es): 2.2+5.1.

Packaging group: /

Environmental hazards: /

Special precautions for user: /

SECTION 15 REGULATORY INFORMATION

Regulations:

This safety data sheet is in compliance with the following national standards: GB16483-2008, GB13690-2009, GB18218-2009, GB15258-2009, GB6944-2012, GB190-2009, GB191-2009, GB12268-2008, GA57-1993, GB/T 15098-2008, GBZ 2-2007 as well as the following national regulations: Dangerous Goods Transport Administrative Regulation, Dangerous Chemicals Safety Administrative Regulation.

SECTION 16 OTHER INFORMATION

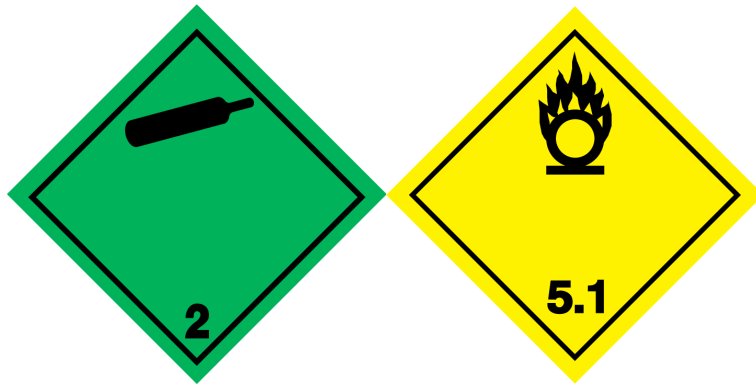
| | |
|-------------------|--|
| References | “Model Regulations on the Transport of Dangerous Goods” “The Globally Harmonized System of Classification and Labelling of Chemicals” |
| Form Date | 06-August-2015 |

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 (such as boiling point does not exist for the solid) in the table with "/" logo.



压缩氧

OXYGEN, COMPRESSED

UN 1072