200000124375

杭州海关技术中心
国家危险化学品检测重点实验室（浙江）

中国认可 检测 TESTING CNAS L0354

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正本/ORIGIN

编号：TCH22004525
No：TCH22004525
日期：2022-05-06
Date：2022-05-06

ZAIQ-RF(HH)-01-19

Safety Data Sheet

Applicant name：THE COMPREHENSIVE TECHNOLOGY AND SERVICE CENTER OF QUZHOU CUSTOMS

Product Name: Difluoromethane

Edit date: 2022-05-06

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	Difluoromethane
Other Name	Refrigerant gas R32
Chemical Name	Difluoromethane
Recommended Use	It is mainly used as a dry cutting agent, a substitute for low—temperature refrigerant R-502, or a mixture of refrigerant with HFC-134a、 HFC-152a to replace HCFC-22.
Manufacturer	Zhejiang Quhua Fluor-Chemistry Co., Ltd
Address	Juhua Group Corporation, Kecheng District, Quzhou City, Zhejiang Province / 324004
Phone Number	+86-0570-3616832
Fax Number	+86-0570-3096798
WEB or E-mail	None
Emergency Phone Number	+86-0570-3097819 or call your nearest poison control centre

2. Hazards identification

GHS classification	Flammable gases 1 Gases under pressure (Liquefied gas)
GHS Pictograms	
Signal words	Danger
Hazard statements	H220:Extremely flammable gas H280:Contains gas under pressure;may explode if heated
Precautionary Statement Prevention	P210:Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Precautionary Statement Response	P377:Leaking gas fire: Do not extinguish, unless leak can be stopped safely. P381:In case of leakage, eliminate all ignition sources.
Precautionary Statement Storage	P403:Store in a well-ventilated place. P410+P403:Protect from sunlight. Store in a well-ventilated place.
Precautionary Statement Disposal	None.
Other hazards which do not result in classification	Not applicable.

3. Composition/information on ingredients

√**Substances**

☐**Mixtures**

Component Information

Component	**CAS number**	**EINECS number**	**Mass(%)**
Difluoromethane	75-10-5	200-839-4	≥99.80%wt

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	Medical personnel must be aware of the substances involved and take protective measures to protect themselves. Appropriate measures should be taken to prevent the occurrence of delayed symptoms such as shock, dyspnea and spasm. Show this SDS to the doctor at the scene.
After inhalation	Move to fresh air. Oxygen or artificial respiration if needed. Get immediate medical attention.
After skin contact	Thaw affected areas with water. Remove contaminated clothing. Caution: clothing may adhere to the skin in the case of freeze burns. After contact with skin, wash immediately with plenty of warm water. If irritation or blistering occur, get medical attention.
After eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Assure adequate flushing of the eyes by separating the eyelids with fingers. Get medical attention immediately.
After ingestion	Do NOT induce vomiting. Give water to victim to drink. Seek medical attention.
Most important symptoms/effects, acute and delayed	Nontoxic at room temperature, can cause rapid asphyxiation.

5. Fire-fighting measures

Suitable extinguishing agents	Selecte suitable fire extinguishing agents according to local conditions and surrounding sanitation. Water spray, foam and carbon dioxide can be used.
Special hazards caused by the material, its products of combustion or flue gases	In case of high temperature (open fire, hot metal surface, etc.), it will decompose to produce carbon oxides, hydrofluoric acid, and may also have carbonyl fluoride. In case of high fever, increased pressure within the container, cracking and explosion.
Protective equipment for fire-fighters	Cut off the gas source. If cannot be cut off, the flame at the leakage point shall not be extinguished. Put out the fire in the upwind direction. Move the container to an open area if possible. Keep the container cool by spraying water until the end of fire fighting. Fire fighters shall wear positive pressure air breathing apparatus and full body fire fighting clothing. When the concentration in the air exceeds the standard, wear a filter type gas mask (half mask). In case of emergency rescue or evacuation, positive pressure self-contained breathing apparatus must be worn.

6. Accidental release measures

Person-related safety precautions	Generally, no protection is required, and self-priming filter respirators can be worn when contacting with high concentrations.
Measures for environmental protection	Prevent further leakage or spillage if safe to do so. Keep product away from drains, surface and ground water. Do not allow material to be released to the environment without proper governmental permits.
Measures for cleaning/collecting	Small leakage, absorb by dry sand or inert adsorption material. Large leakage, build a causeway, Isolate the leakage area until the gas is exhausted. Avoid open fire and high temperature. In case of large leakage, wear self-contained breathing apparatus (SCBA).
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	Airtight operation, provide adequate local exhaust and full ventilation. Operators must undergo special training and follow the procedure strictly. Keep away from flammable and combustible materials. When workers are facing high concentrations they must wear self-contained filter mask (half mask), wear chemical safety protective glasses, breathable gas protective clothing, and chemical-proof gloves. Keep away from fire and heat sources, and smoking is strictly prohibited in the workplace. Prevent gas from leaking into the air of the workplace. Handle with care to prevent the cylinder and accessories damage. Provide corresponding varieties and quantities of fire-fighting equipment and leakage emergency treatment equipment.
Information about protection against explosions and fires	Keep away from heat, fire, sparks or open fire. No smoking. Use of explosion-proof lighting, ventilation facilities. Use spark-proof tools and mechanical equipments. Although the cylinders are equipped with pressure and temperature safety relief devices, under fire and high temperature conditions, they can still rupture and the product will break down into harmful HF.

STORAGE

Requirements to be met by storerooms and containers	Temperature should not exceed 30 ℃. Keep away from fire, heat, and prevent direct sunlight. Keep tightly closed until used. Lightning protection shall be installed in warehouse. Store separately with strong oxidizing agent, alkali metals,

	alkaline earth metals, and avoid mixed storage.
Information about storage in one common storage facility	Take measures to prevent static electricity, container and receiving device grounding and connection. Handle with care to prevent cylinders and accessories damage. Equip with corresponding varieties and quantities of fire fighting equipment and leakage emergency disposal equipment.
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 PEL-TWA**	**NIOSH PEL-STEL**
Difluoromethane	75-10-5	N.E.	N.E.	N.E.	N.E.

Appropriate engineering controls	Before using welding torch or open fire in the workplace, or before employees enter the closed area, the concentration of refrigerant must be detected. There must be sufficient ventilation to ensure that the concentration of employees is lower than the allowable value. When there is a large amount of leakage, there should be local ventilation. Provide mechanical ventilation in low-lying areas or enclosed areas.
General protective and hygienic measures	No smoking, eating and drinking at work site. Wash hands before eating and after work. No smoking. Separate the clothes that were contaminated by poison, and then wash them back. Avoid high concentration of inhalation. Enter the tank, confined space or other area of high concentration of work, must have guardianship.
Personal protective equipment	Wear general working clothes, impervious gloves and chemical safety goggles.
Breathing equipment	When using this product, respiratory protection is not required under normal conditions. Use self-contained breathing apparatus in case of large leakage.
Protection of hands	Impervious gloves.
Eye/Face protection	Wear safety glasses with side shields. Wear a mask when it may contact the face due to splashing, spraying or air entrainment.
Body protection	Full set of anti chemical reagent overalls, flame retardant antistatic protective clothing, choose body protection according to the amount and concentration of the dangerous substance at the work place.

Note: 1. N.E. means not established.

9.Physical and chemical properties

Physical state	Liquid (Liquefied gas)
Colour	Colorless

Odour	Slight ether odour
Melting point/freezing point	-136 ℃
Boiling point or initial boiling point and boiling range	-51.7 ℃
Flammability	Extremely flammable gas
Lower and upper explosion limit/ flammability limit	12.7 - 33.4 %(V)
Flash point	Not applicable
Auto-ignition temperature	680 ℃
Decomposition temperature	No data available
pH	Not applicable
Kinematic viscosity	Not applicable
Solubility	4.4 g/L (water 25 ℃)
Partition coefficient: n-octanol/water(log value)	No data available
Vapour pressure	202.65 kPa (-28.4 ℃)
Density and/or relative density	1.1
Relative vapour density (air=1)	1.8
Particle characteristics	Not applicable

10. Stability and reactivity

Reactivity	No data available.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Decomposes on contact with hot surfaces or flames. This produces toxic and corrosive fumes. No polymerization.
Conditions to avoid (e.g. static discharge, shock or vibration)	Static discharge, shock heat, open fire and high temperature.
Incompatible materials	Avoid contact with strong oxidizing agent, alkali metals, alkaline earth metals.
Hazardous decomposition products	May include carbon oxides, fluorides, carbonyl fluoride, etc.

11.Toxicological information

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

Difluoromethane (CAS 75-10-5)	LD50 (Oral,rat): N/A LC50 (Inhalation,rat): 1890000 mg/m^3 (4 h) LD50 (Dermal,rabbit): N/A
Skin corrosion/Irritation	No skin irritation, no animal test. Based on the nature of the substance, experts believe that it will not cause skin irritation.
Serious eye damage/irritation	No eye irritation, no animal test. Based on the nature of the substance, experts believe that it will not cause eye irritation.
Respiratory or skin sensitization	No animal testing, based on the nature of the substance, experts believe that it will not cause sensitization. No human respiratory sensitization has been reported.
Germ cell mutagenicity	No genetic damage was found. No genetic damage was found in mammalian cells cultured in vitro, and no genetic damage was observed in cultured bacterial cells.
Carcinogenicity	No carcinogenesis.
Reproductive toxicity	No reproductive toxicity to animals.
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified
Chronic Effects	Not classified
Further Information	Simple choking agent.

12. Ecological information

Ecotoxicity

Aquatic Toxicity	Test & Species
	96 Hr LC50 Fish: N/A
	48 Hr EC50 Daphnia: N/A
	72 Hr EC50 Algae: N/A

Persistence and degradability	It is difficult to biodegradation.
Bioaccumulative potential	Will not accumulate in organic matter.
Mobility in soil	Insoluble in water evaporates rapidly.
Additional Information	Harms public health and the environment by destroying ozone in the upper atmosphere.

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 3252
Proper Shipping Name	DIFLUOROMETHANE (REFRIGERANT GAS R 32)
Class/Division	Division 2.1 Flammable Gases
Package Group	—

Subsidiary risk	—
labelling pictogram	
Maritime transport IMDG/ Marine pollutant (Yes/No)	Being same with TDG/No
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: 1 Flammability: 4 Physical hazard: 0 Personal protection:H (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 judgment 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	06.05.2022
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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化学品安全数据表

申请单位：衢州海关综合技术服务中心

产品名称：二氟甲烷

编制日期：2022-05-06

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	二氟甲烷
其他名称	HFC-32; R32; F32
化学名称	二氟甲烷
使用建议	主要用作干刻机，低温制冷剂 R-502 的替代品，或者分别与 HFC-134a、HFC-152a 形成混合制冷剂替代 HCFC-22。
生产商	浙江衢化氟化学有限公司
地址	浙江省衢州市柯城区巨化集团公司内/324004
固定电话	+86-0570-3616832
传真	+86-0570-3096798
网址或电子邮件地址	无
应急电话	+86-0570-3097819 或向离你最近的解毒中心求助

2. 危险标识

GHS 危险性分类	易燃气体 1 类 高压气体（液化气体）
GHS 危险标签	
信号词	危险
危险说明	H220:极易燃气体 H280:内装高压气体，遇热可爆炸
防范说明预防	P210:远离热源、热表面、火花、明火和其他点火源。禁止吸烟。
防范说明反应	P377:漏气着火： 置于通风良好处。切勿灭火，除非可安全堵住泄漏。 P381:漏气时，去除一切点火源。
防范说明储存	P403:存放于凉爽/通风处 P410+P403:防日晒，存放于通风良好处
防范说明处置	无
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(%)**
二氟甲烷	75-10-5	200-839-4	≥99.80%wt

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	务必让医务人员知道所涉及的物质，并采取防护措施以保护他们自

	己。保持观察患者，需采取适当的措施防止休克、呼极困难、痉挛等延迟症状的发生。出示此 SDS 给到现场的医生看。
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	用水解冻接触区域。脱掉污染衣物。注意事项：衣物可在冷冻烧伤的情况下附着皮肤。与皮肤接触后，立即用大量温水清洗。如果刺激或起泡发生，求医。
眼睛接触后	立即用大量的水冲洗眼睛至少 15 分钟。用手指分开眼睑以保证充分冲洗眼睛。马上就医。
摄入后	禁止催吐。给受害者饮水。求医。
主要的症状和影响，包括急性和迟发效应	常温下无毒，能引起迅速的窒息作用。

5. 消防措施

合适的灭火剂	按当地情况和周围环境卫生选用适宜的灭火剂，雾状水、泡沫、二氧化碳均可。
由物质本身或其燃烧产物、烟气产生的特殊危险	在高温（明火、灼热的金属表面等）分解生成碳氧化物、氟化氢，可能还有碳酰氟。若遇高热，容器内压增大，有开裂和爆炸的危险。
消防人员的特殊防护设备	切断气源。若不能切断气源，则不允许熄灭泄漏处的火焰。在上风向灭火。尽可能将容器从火场移至空旷处。喷水保持火场容器冷却，直至灭火结束。消防人员须佩戴正压式空气呼吸器、穿全身消防服。空气中浓度超标时，佩戴过滤式防毒面具(半面罩)。紧急事态抢救或撤离时，必须佩戴正压自给式呼吸器。

6. 泄露应急处理

与人相关的安全防范措施	一般不需要防护，高浓度接触时，可佩戴自吸过滤式防毒面具。
环境保护措施	如能做到应防止进一步的泄露和溢出。使产品远离排水沟、地表水和地下水。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	少量泄漏时，可采用干砂或惰性吸附材料吸收泄漏物；大量泄漏时需筑堤控制。隔离泄露区直至气体散尽。避免明火和高温，如发生大量泄漏，需佩戴自给式呼吸器（SCBA）。
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	密闭操作，提供充分的局部排风和全面通风。操作人员必须经过专门培训，严格遵守操作规程。远离易燃、可燃物。高浓度接触时可佩戴自吸过滤式防毒面具（半面罩），戴化学安全防护眼镜，穿透气型防毒服，戴防化学品手套。远离火种、热源，工作场所严禁吸烟。防止气体泄漏到工作场所空气中。搬运时轻装轻卸，防止钢瓶及附件破损。配备相应品种和数量的消防器材及泄漏应急处理设备。
防止爆炸和火灾的信息	远离热源、火源、火花或明火、禁止吸烟。 采用防爆型照明、通风设施。 禁止使用易产生火花的机械设备和工具。

	虽然钢瓶上都装有压力和温度的安全释放装置，但在火灾和高温条件下，仍然会破裂，产品就会分解出有害的 HF。
存储	
对储藏室和容器的要求	库温不宜超过 30 ℃。 远离火种、热源，防止阳光直射。 使用前保持容器密闭。 库房必须安装避雷设备。 应与强氧化剂、碱金属、碱土金属分开存放，切忌混储。
关于储藏在普通存储设施中的信息	采取防止静电措施，容器和接收设备接地、连接。 搬运时轻装轻卸，防止钢瓶及附件破损。配备相应品种和数量的消防器材和泄漏应急处置设备。
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
二氟甲烷	75-10-5	N.E.	N.E.	N.E.	N.E.

减少接触的工程控制方法	在工作场所使用焊枪或明火之前，或员工进入密闭区之前必须先检测制冷剂的浓度，有足够的通风保证员工接触浓度低于允许值，有大量泄漏时，应有局部通风。在低洼地或密闭区应有机械通风。
一般保护和卫生措施	工作现场禁止吸烟、进食和饮水。饮食前，下工后应洗手，不准抽烟。单独存放被毒物污染的衣服，洗后备用。避免高浓度吸入。进入罐、限制性空间或其它高浓度区作业，须有人监护。
个人防护用品	穿一般作业工作服，戴防渗手套，戴防护眼镜。
呼吸设备	当使用本产品时，在正常生产条件下，不需要呼吸保护。发生大量泄漏时，要用自给式呼吸器。
双手保护	防渗手套。
眼睛/面部保护	戴有侧档板的安全眼镜，当有可能由于飞溅，喷洒或空气夹带这种物质，接触脸部时，再戴面罩。
身体保护	全套防化学试剂工作服，阻燃防静电防护服，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. 就是还没有建立的意思。

9.物理和化学特性

物理状态	液体（液化气体）
颜色	无色透明
气味	类似醚的气味
熔点/凝固点	-136 ℃
沸点或初始沸点和沸程	-51.7 ℃
易燃性	极端易燃气体
上、下爆炸极限/易燃极限	12.7 - 33.4 %(V)

闪点	不适用
自燃温度	680 ℃
分解温度	无数据资料
pH 值	不适用
运动粘度	不适用
溶解性	4.4 g/L (水 25 ℃)
分配系数:正辛醇/水（对数值）	无数据资料
蒸汽压	202.65 kPa (-28.4 ℃)
密度和/或相对密度	1.1
相对蒸气密度（空气=1）	1.8
颗粒特征	不适用

10. 稳定性和反应活性

反应性	无数据资料
化学稳定性	在推荐的贮存条件下稳定。
有害反应的可能性	与热表面或火焰接触分解。这会产生有毒和腐蚀性的烟雾。 不发生聚合。
需避开的条件（如：静电放电，震动等）	静电放电，震热，明火和高温。
不相容的物质	避免和强氧化剂、碱金属、碱土金属接触。
有害分解产物	碳氧化物，氟化氢，碳酰氟等。

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

二氟甲烷（CAS 75-10-5）	LD50（口服，大鼠）：未知 LC50（吸入，大鼠）：1890000 mg/m^3 (4 h) LD50（皮肤，兔子）：未知
皮肤腐蚀/刺激	无皮肤刺激，不做动物试验，基于物质性质，专家认为不会引起皮肤刺激。
严重眼损伤/刺激	无眼睛刺激，不做动物试验。基于物质性质，专家认为不会引起眼睛刺激。
呼吸或皮肤敏化作用	不做动物测试，基于物质性质，专家认为不会引起的敏化作用。 没有人类呼吸敏化作用的报告。
生殖细胞致突变性	未引起动物的遗传损害。 未引起体外培养的哺乳动物细胞的遗传损害，未引起培养的细菌细胞的遗传损害。
致癌性	不致癌。
生殖毒性	对动物无生殖毒性。
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	简单的窒息剂。

12. 生态学信息

生态毒性

水生毒性	测试 & 物种 96 Hr LC50 鱼：未知 48 Hr EC50 溞类：未知 72 Hr EC50 藻类：未知
持久性和降解性	难以进行生物降解的。
潜在的生物累积性	不会累积在有机物中。
土壤中的迁移性	难溶于水迅速蒸发。
其他信息	破坏高层大气中的臭氧，危害公共健康和环境。

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 3252
正式运输名称	二氟甲烷（制冷气体 R32）
危险类/项别	2.1 项 易燃气体
包装类别	—
次要危险性	—
危险性标签	
国际海运危规 IMDG/海洋污染物（是/否）	与 TDG 的分类相同/否
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：1 易燃性：4

	物理危害：0 个人防护：H (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
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