

安全数据单

MATERIAL SAFETY DATA SHEET

Section 1 Identification

第一节 标识

Edit Foundation:GHS Fifth Revised Edition

编制依据：全球化学品统一分类和标签制度（第五修订版，GHS）

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有效期：见第十六节说明

Product Use:Fuel

产品用途：制冷或燃料

UN Proper Shipping Name:LIQUEFIED GAS,FLAMMABLE

联合国正式运输名称：液化气体，易燃，未另作规定的

Manufactured by:NINGBO KOMAN'S REFRIGERATION INDUSTRY CO.,LTD.

NO.20 YONGDINGHE ROAD,BEILUN NINGBO CHINA

Phone Number:+86-574-87307714

Fax:+86-574-87317736

供应商：宁波考尔曼制冷工业有限公司

宁波市北仑区霞浦永定河路20号

电话：+86-574-87307714/86910071

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应急电话：+86-13429252533

Section 2 Hazard Identification

第二节 危险标识

GHS Classification:

GHS 分类:

Health 健康危害	Environmental 环境危害	Flammable Gases: Category:1
Acute Toxicity:Oral,Dermal-Not detected 急性毒性：经口，经皮肤-未检测	Aquatic Toxicity::Not	易燃气体：第1类
Skin Corrosion:Not known 皮肤腐蚀/刺激：未知	Classify 水生毒性：不分类	Gases Under Pressure:Liquefied
Eye Corrosion :Not known 严重眼损伤/刺激：未知	Hazardous to the ozone	Gas 高压气体：液化气体
Skin Sensitization:Not known 皮肤敏化作用：未知	layer:Not known	
Mutagenicity:Not known 致突变性：未知	危害臭氧层：未 知	
Carcinogenicity:Not known 致癌性：未知		

Reproductive Toxicity: L Not known 生殖毒性：未知		
Target Organ Toxicity: Not known 特定目标器官毒性：未知		

GHS Label:

GHS 标签:

Symbols:



符号:

Signal Words: Danger

信号词：危险

Hazard Statements:

危险说明:

H220 Extremely flammable gas

极易燃气体

H280 Contains gas under pressure, may explode if heated

内装高压气体，遇热可能爆炸

Precautionary Statements:

防范说明:

P210 Keep away from heat /sparks/open flames/hot surfaces.--No smoking.

远离热源/火花/明火/热表面。——禁止吸烟

P377 Leaking gas fire:do not extinguish,unless leak can be stopped safely.

漏气着火：切勿灭火，除非漏气能够安全地制止

P381 Eliminate all ignition sources if safe to do so.

去除一切点火源，如果这么做没有危险

P410+P403 Protect from sunlight, store in a well-ventilated place.

防日晒，存放在通风良好的地方

Section 3 Composition/Information on Ingredients

第三节 组成/成分信息

Component	CAS Number	Weight %
组分	CAS 号	质量百分比
PROPYLENE	115-07-01	46-54
丙烯		
PROPANE	74-98-6	20-22
丙烷		
DIMETHYL ETHER	115-10-6	24-34
二甲醚		

Section 4 First-aid Measures

第四节 急救措施

Health hazards:

This product has a simple suffocation and anesthetic effects. The body short contact 1% propane does not cause symptoms. Concentrations below 10%, causing only mild dizziness: Exposure to high concentrations can appear anesthesia, loss of Consciousness, high concentrations can cause suffocation.

健康危害:

本品有单纯性窒息及麻醉作用。人体短暂接触 1% 丙烷，不引起症状：10% 以下的浓度，只引起轻度头晕，接触高浓度可出现麻醉状态，意识丧失，极高浓度可致窒息。

Inhalation:

If breathed in, move person into fresh air, Keep breathing smooth, If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Consult a physician.

吸入:

如果吸入，请将患者移到新鲜空气处。保持呼吸畅通。如呼吸困难，给输氧。如呼吸停止，立即进行人工呼吸。就医。

Skin:

This product is liquefied gas. C

眼睛:

万一冻伤或者被液体瞬间蒸发吸热冻伤，不要用热水或者温水洗眼睛。将受害者转移离开污染源。睁开眼，保持睁眼状态使液体快速蒸发掉。如果疼痛，将受害者送至眼科医生处做进一步的治疗。如果受害者眼睛无法忍受光线，就用绷带或者手帕轻轻绑住眼睛。

Skin:

Take off the freezing clothes on the skin after it has been thawed, and bathe with lukewarm water.

皮肤:

冻结在皮肤上的衣服，要在解冻后才可脱去，接触部位用温水浸泡复温。

Inhalation:

Immediately remove to fresh air, keeping breathing smooth. If breathing is difficult, give oxygen; If the breathing is stopped, artificial respiration and go to hospital for medical treatment.

吸入:

应迅速脱离现场至空气新鲜处，保持呼吸通畅。若呼吸困难，应给予吸氧；若呼吸停止，应进行人工呼吸。就医。

Ingestion:

It is unlikely to occur. The impact of intake is not yet clear. However, minimum health effects can be predicted. Ask physicians to seek treatment program or contact the local center of Toxic Substances Control Centre.

食入:

不太可能发生。摄入的影响尚不明。但最小的健康影响是可以预知的。可以向内科医生寻求治疗方案或者联系地方有毒物质控制中心。

Section 5 Fire-fighting Measures

第五节 消防措施

Flash point: Unknow

闪点: 未知

Flammable Limits:

LFL: Unknown

UFL: Unknown

燃烧极限:

着火上限: 未知

着火下限: 未知

Hazardous Combustion Products:

Carbon monoxide, carbon dioxide.

危险燃烧产物:

一氧化碳、二氧化碳。

Extinguishing Media:

Sprayed water, alcohol resistant foam, carbon dioxide, dry or sandy soil.

灭火介质:

雾状水、抗溶性泡沫、二氧化碳、干粉、砂土。

Fire Fighting Instructions:

Cut off the gas source as much as possible. Specially trained personnel can make use of nebulized water for cooling down the tank or the wall and its surrounding combustible materials in order to reduce the burning speed and protect plugging personnel, let the fire to burn out.

灭火指南:

灭火时要先尽可能切断气源。受过特殊训练的人员可以利用喷雾状水流冷却烧烫的罐或管壁及其周围的容器和可燃物，以降低燃烧速度，保护堵漏人员，让火自行烧尽。

Protective Equipments for Fire Fighting: If it is necessary, wear self-given respirator.

消防队员的保护装备: 如有必要,戴自给式呼吸器去救火。

Section 6 Accidental Release Measures

第六节 意外释放措施

Protection:

Refer to the Section 8 using suitable protection equipments. Avoid to indraft vapor and gas, wipe out all fire source, remove people to safety place. Prevent gas reach to explosion concentration and make the environmental protection. Ensure safety and take action to stop the gas leakge. Do not let the extinguishing media go into the sewer. According to

local regulation, clean up the residual gas through anti-electric vacuum cleaner. (Refer to Section 13)

人员的防护:

请参照第 8 节使用合适的个人防护装备.防止吸入蒸汽,气雾或气体,除去所有火源,将人员撤离到安全区域.防范蒸汽积累达到可爆炸的浓度.蒸汽能在低积聚.环境预防措施。在确保安全的条件下,采取措施防止进一步泄漏或溢出。不要让产物进入下水道。用防静电真空清洁器扫干净或吸干净,根据当地规定处理。(参照第 13 节)

Section 7 Handling and Storage

第七节 搬运和储存

Disposal Procedure:

Avoid to indraft vapor and gas, fire source. Take action to avoid the static.

处置程序:

防止吸入蒸汽和烟雾,切勿靠近火源,严防烟火,采取防静电生成的措施。

Handling Procedures:

Closed operation to enhance ventilation. The operator must go through specialized training and strictly follow the operation rules. Keep far away from fire and heat source, no smoking in the workplace. Avoid to contact with oxidants. Move lightly to prevent damage to the cylinders and accessories.

搬运程序:

密闭操作,加强通风,操作人员必须经过专门培训,严格遵守操作规程。远离火种、热源,工作场所严禁吸烟。避免与强氧化剂接触。搬运时要轻装轻卸,防止包装及容器损坏。

Storage Procedures:

Store in a cool, ventilated dedicated warehouse, warehouse temperature should not exceed 52 ° C. Keep them far away from fire and heat source, and prevent direct sunlight. Oxidant and halogen should be stored separately. Use anti-explosion light and ventilation installation. Prohibit the use of mechanical equipment and tools which can easily produce sparks. Storage area should have necessary equipments for emergency using.

储存程序:

储存于阴凉、通风的库房。远离火种、热源。库温不宜超过 52℃。应与氧化剂、卤素分开存放,切忌混储。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。储区应备有泄漏应急处理设备。

Section 8 Exposure Controls/Personal Protection

第八节 接触控制/人身保护

Engineer Controls:

Refer to industrial health and safety regulation, wash hands after work.

Inhalation Protection:

Using US or ABEKS (EN14387) gas mask as spare of engineer controls if gas mask is required. If gas mask is the only way of projection, wear air respirator according to governmental standard of material and parts like NIOSH(US) or CEN(EU).

Body Protection:

The choice of anti chemical, fireproof and anti-static working clothes, protection equipments depends on the gas concentration in the workplace. Mask and glasses should follow the standard like NIOSH(US) or EN 166(EU).

Hands Protection:

When dealing with the sample, the gloves should be checked carefully before use and take off through right way to avoid contacting with the skin. Carefully dispose used gloves and dry the hands. The gloves should follow the standard of EU89866, EEC and EN376.

Health Protection:

Refer to industrial health and safety regulation, comply with general protection method, keep them far away from the food, drink and feed. Take off the clothes after work and have a shower. Keep all used clothes together and wash them for next use. Wash hand after work and avoid to contact with skin.

工程控制:

根据工业卫生和安全使用规则来操作,休息以前和工作结束时洗手.

吸入保护:

如危险性显示需要使用空气净化的防毒面具, 请使用全面罩式多功能防毒面具 (US) 或 ABEKS(EN14387)防毒面具简称为工程控制的候补, 如果防毒面具是保护的唯一方式, 则使用全面罩式送风防毒面具, 呼吸器使用经过测试并通过政府标准如 NIOSH(US)或 CEN(EU)的呼吸器和零件。

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规定工作场所中的危险物的浓度和含量来选择。面罩与安全眼镜请使用经官方标准如 NIOSH(US)或 EN 166(EU)检测与批准的设备防护眼部。

手保护:

戴手套处置样品, 手套在使用前必须接受检查, 请使用合适的方法脱除手套 (不到接触手套外部表面), 避免任何皮肤部位接触此产品, 使用后请将被污染过的手套, 根据相关法律法规和有效的实验室规程序谨慎处理。请清洁并吹干双手。所选择的保护手套必须符合 EU 的 89866、EEC 规定和从它衍生出来的 EN 376 标准。

卫生措施:

根据工业卫生和安全使用规则来操作, 当处理化学物品时, 应遵循一般的预防措施, 远离食品, 饮料和饲料。工作完毕, 立即除去所有被污染的衣服。沐浴更衣, 单独存放被毒物污染的衣服, 洗后备用, 保持良好的卫生习惯, 休息以前和工作完毕时清洗双手, 避免和限制及皮肤接触。

Section 9 Physical and Chemical Properties
第九节 物理和化学特性

Physical Properties: 物理状态:	Gas 气体
Color: 颜色:	Colorless 无色
Odor:	a slight ether odor

气味:	轻微的醚味
Molecular Weight: 分子量:	No Data 无数据
pH: pH:	6-7
Boiling Point: 沸点:	No Data 无数据
Melting/Freezing Point 熔点/冰点	No Data 无数据
Auto-ignition Temperature: 自动点火温度:	No Data 无数据
Volatility: 挥发性:	No Data 无数据
Odor Threshold: 气味阈值:	No Data 无数据
Solubility in Water: 水溶性:	Slightly soluble in water 微溶于水
Decomposition temperature: 分解温度:	No Data 无数据
Partition coefficient: n-octanol/water: 正辛酸/水分配系数:	No Data 无数据
Relative Density: 相对密度:	No Data 无数据
Vapour pressure (kPa): 蒸气压 (kPa):	No Data 无数据
Vapour density: 蒸气密度:	No Data 无数据

Section 10 Stability and Reactivity

第十节 稳定性和反应性

Stability:

Stable

稳定性:

稳定

Conditions to avoid:

Fire, heat, extreme temperature and sunshine

应避免的条件:

明火、高热，极端温度和直接日光

Material to Avoid:

Strong oxidant and Halogen.

不相容材料:

强氧化剂，卤素。

Hazardous Polymerization:

No Data

聚合危险:

无数据

Section 11 Toxicological information

第十一节 毒理学信息

Acute toxicity: LC₅₀ Gas (Mice inhaled) 82000PPM, 1 hour

急性毒性: LC₅₀ 气体 (实验鼠吸入) 82000PPM, 1 小时

Irritation: Hazardous

刺激性: 是

Sensitization: N/A

致敏性: 无

Mutagenicity: N/A

致突变性: 无

Teratogenicity: N/A

致畸性: 无

Carcinogenicity: N/A

致癌性: 无

Target Organ Effect: No Data

目标器官作用: 无数据

Section 12 Ecological Information

第十二节 生态信息

Ecotoxicity: No Data

生态毒性: 无资料

Biodegradability: No Data

生物降解性: 无资料

Non-biological degradability: No Data

非生物降解性: 无资料

Bioconcentration or bioaccumulation: No Data

生物富集或生物积累性: 无资料

Other harmful effects: No Data

其它有害作用: 无资料

Section 13 Disposal Consideration

第十三节 处置考虑

Waste Disposal:

Burn in a chemical incinerator equipped with an afterburner and scrubber. Caution: it is an extremely flammable gas, return back the residual liquid to the company and contact with professional organization to dispose the waste.

废弃物处理办法:

在装备有加力燃烧室和洗刷设备的化学焚烧炉内燃烧处理,特别在点燃的时候要注意,因为此物质是高度易燃性物质,将剩余的和未回收的溶液交给处理公司,联系专业的拥有废弃物处理的机构来处理此物质

Section 14 Transport Information

第十四节 运输信息

Road Transport: ADR/RID

陆路运输: ADR/RID

ADR/RID classification: flammable gas 2.1

ADR/RID 分类: 第 2.1 项易燃气体

UN No.: 3161

联合国编号: UN3161

Maritime transport IMDG:

海运 **IMDG:**

IMDG Class: flammable gas 2.1

海运分类: 第 2.1 项易燃气体

Package Label: Flammable Gas

包装标志: 易燃气体

Package: steel cylinder, ISO tank or road tanker

包装方法: 钢瓶, ISO 集装柜或运输罐

Attention:

Avoid sunlight, high temperature in summer season sooner or later transport.

运输注意事项:

避免日光曝晒, 夏季高温季节早晚运输。

Marine Pollutant: No

海洋污染物: 不是

Proper Shipping Name: LIQUEFIED GAS,FLAMMABLE

(PROPYLENE, PROPANE AND DIMETHYL ETHER MIXTURES)

正式运输名称: 丙烯/丙烷/二甲醚混合物

Air transport ICAO-TI and IATA-DGR:

空运 **ICAO-TI** 和 **IATA-DGR:**

Air Class: flammable gas 2.1

空运分类: 第 2.1 项易燃气体

Not allowed to transport

不允许运输

Section 15 Regulatory Information

第十五节 管理信息

According to Chinese <<National Regulation of Dangerous Chemical Products Management>> & <<List of Dangerous Goods>> (GB 12268-2012), this products is classified as Flammable Gas, class 2.1.

中国化学品安全法规:《危险化学品安全管理条例》(第 591 号令)、《工作场所安全使用化学品规定》等法规,针对危险化学品的安全使用、生产、储存、运输、装卸等方面均作了相应的规定;危险货物名表(GB12268-2012)将该物质划为 2.1 项易燃气体

Section 16 Other Information

第十六节 其他信息

The information is to the best of our knowledge and is just used for health, safety and environmental purpose.

本信息是根据我们所掌握的知识所编制，仅用于健康，安全和环境目的。

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Edit Institution: Ningbo Koman's Refrigeration Industry Co.,Ltd. Technical Department.

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