

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）

Edit Date:October 30 ,2015

编制日期：2015 年 10 月 30 日

Available Period:See Section 16 for more description

有效期：见第十六节说明

]Product Name:PROPYLENE/PROPANE AND DIMETHYL ETHER

产品名称：丙烯/丙烷/二甲醚混合物

Product Use: Fuel

用途：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, chemical industry park, Xiapu, Beilun, Ningbo.

Tel: 0574-86910051

Fax: 0574-86910070

供应商：宁波考尔曼制冷工业有限公司

宁波北仑霞浦精细化工园永定河路 20 号

电话：0574-86910051

传真：0574-86910070

Emergency Phone Number: 0574-86910051/13429252533

应急电话：0574-86910051/13429252533

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	Physical 物理危害
Acute Toxicity:Oral,Dermal-Not detected 急性毒性：经口，经皮肤-未检测	Aquatic Toxicity: Not Classify: 水生毒性：不分类	FlammableGases: Category 1 易燃气体：第一类

Skin Corrosion:Not known 皮肤腐蚀/刺激：未知	Hazardous to the ozone Layer: Not known 危害臭氧层：未知	Gases under Pressure: Liquefied Gas 高压气体：液化气体
Eye Corrosion:Not known 严重眼损伤/刺激：未知		
Skin Sensitization:Not known 皮肤敏化作用：未知		
Mutagenicity:Not known 致突变性：未知		
Carcinogenicity:Not known 致癌性：未知		
Reproductive Toxicity: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 Contents 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 组分	CAS No. CAS 号	Weight % 质量百分比
PROPYLENE 丙烯	115-07-01	36-44
PROPANE 丙烷	74-98-6	18-22
DIMETHYL ETHER 二甲醚	115-10-6	36-44

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. Contacting lots of liquefied propane may send skin frostbite. If the skin feels uncomfortable, seek immediate medical assistance.

皮肤:

本品为液化气体，皮肤接触大量液化丙烷可能引起冻伤。如皮肤感觉不适，就医。

Eye:

This product is liquefied gas, it may damage the eyes.

眼睛:

本品为液化气体，可能损伤眼睛。

Ingestion:

If swallowed, seek immediate medical assistance.

摄入:

摄入后请立即就医。

Section 5 Fire-fighting Measures

第五节 消防措施

Product hazard characteristics:

Extremely flammable gas.Mixed with air can produce an explosive mixture.If contact with heat or fire,it may burn explosion,After contact with other oxidants,it can occur Violent chemical reaction.Gas has greater density than air.It can spread to faraway places in the lying areas,and will catch fire while contact with fire.

产品危险特性:

极易燃气体。与空气混合后能够产生爆炸性混合物，遇热源或明火有燃烧爆炸的危险。与其他氧化剂接触后能够发生猛烈化学反应。气体比空气密度大。能在低洼处扩散至很远的地方，遇明火会着火。

Flammability Limits:

PROPYLENE Lower explosion limit 2.0%(V/V); Upper explosion limit 11.7%(V/V)

PROPANE Lower explosion limit 2.1%(V/V):Upper explosive limit:9.5%(V/V)

DIMETHYL ETHER Lower explosion limit 3%(V/V):Upper explosive limit:17%(V/V)

燃烧极限:

丙烯 爆炸下限: 2.0% (V/V) :爆炸上限: 11.7% (V/V)

丙烷 爆炸下限: 2.1% (V/V) :爆炸上限: 9.5% (V/V)

二甲醚 爆炸下限: 3% (V/V) :爆炸上限: 17% (V/V)

Extinguishing Media:carbon monoxide,carbon dioxide

危险燃烧产物: 一氧化碳、二氧化碳。

Fire fighting methods:

Cut off the gas supply,If you can't cut off the gas source,not allowed to put out the flame leak.Douse the containers,if possible,transfer the containers from the fire to the open place.

灭火方法:

切断气源，若不能切断气源，不允许熄灭泄露处的火焰。喷水冷却容器，可能的话将容器从火场转移至空旷处。

Extinguishing Media:

Water spray,foam,dry powder,carbon dioxide:Use water mist spray mass burning fire.

灭火介质:

雾状水、泡沫、干粉、二氧化碳: 大规模燃烧可使用水雾喷射灭火。

Protective Equipments for Fire Fighting:

Wear body fire-fighting equipment,wear self-contained breathing apparantus and protective clothing.

消防队员的保护装备:

穿着全身灭火装备，配戴自给式呼吸器和防毒服。

Section 6 Accidental Release Measures

第六节 意外释放措施

Personnel protection:

Persons should leave quickly from the pollution area to windward,and be isolated,and access restricted.Recommended emergency personnel wear self positive pressure respirator,wear protective clothing.

人员的防护:

迅速撤离泄露污染区人员至上风处，并进行隔离，严格限制出入。建议应急处理人员佩戴自给式正压呼吸器，穿消防防护服。

Leakage treatment:

Cut off the source of leakage.Cover the drain near the leak with industrial covering layer or adsorbent,to avoid the gas into the drain causing explosion dangerous.

泄露处理:

切断泄漏源。用工业覆盖层或吸附/吸收剂盖住泄漏点附近的下水道口，防止气体进入引发爆炸燃烧等危险。

Environmental preventive measures:

The reasonable ventilation,accelerated dirrusion ,Spray of water to cool,dilution.

环境预防措施:

合理通风，加速扩散。喷雾状水冷却、稀释。

Cleaning method:

Clean up promptly by sweeping or vacuum.

清理方法:

构筑围堤或挖坑收集处理过程产生的大量废水。如有可能，将漏出气用排风机送至空旷地方或装设适当喷头烧掉。也可以将漏气容器转移至空旷处，注意通风。漏气容器应妥善处理，修复并经检验合格后方可再次使用。

Section 7 Handling and Storage

第七节 处置和储存

Handling Procedures:

The operator should undergo professional training and observe the rules of the rules of the operation strictly.Closed operation ,full ventilation .Mechanical equipment or tools which can produce spark easily can't be used.

处置程序:

操作人员应该经过专业培训，严格遵守操作规程。密闭操作，全面通风，禁止使用易产生火花的机械设备或工具。

Storage Procedures:

Store in cool place.Keep container tightly closed in a dry and well-ventilated place.

Contents under pressure.

储存程序:

储存于阴凉、干燥、通风良好的库房。贮藏区温度不宜超过 30℃。远离火种、热源，避免阳光直射。保持容器密封，容器应有防火爆技术措施。罐装量应适量，不可超压充装。储存时应与氧气、压缩空气、氯气或其他氧化剂隔离存放。存储空间照明、通风设备应采用防爆型，开关设在存储区外。配备相应品种和数量的消防器材。露天贮罐夏季要有降温装置。

Section 8 Exposure Controls/Personal Protection

第八节 接触控制/人身保护

Engineering control:

GBZ 2.1-2007 Occupational exposure limits for hazardous agents in the workplace

Chemical hazardous agents:not listed.

America TLV-TWA:300 mg/ m^3

The production process should be closed and strengthen the ventilation.No smoking,eating and drinking ,avoid high temperature,fire in the workplace.

工程控制:

GBZ 2.1-2007<工业场所有害因素职业接触限制 化学有害因素>: 未列入。

美国 TLV-TWA:300 mg/ m^3

生产过程应密闭, 加强通风。工作场所严禁吸烟、进食和饮水、避免高温、火源。

Respiratory Protection:

Wear self-absorption filter respirators or self-contained breathing apparatus.

吸入保护:

佩戴自吸式过滤防毒面具或自给式呼吸器。

Body protection:Wear anti-static clothing.

身体保护: 穿防静电工作服。

Eye Protection:Contacting with high concentrations should wear chemical safety glasses.

眼保护: 高浓度接触佩戴化学安全防护眼睛。

Hand protection:Wear the general working gloves.

手保护: 佩戴一般作业手套。

Other protection:

Smoking is prohibited in the workplace.Avoid long-term repeated contact.People Work in the storage tank,limited space or the range of high concentration,under the watchful eye.

Get in and out the storage tank.

其他保护:

工作场所严禁吸烟。避免长期反复接触。进出贮罐、限制空间或其他高浓度区作业, 应有人监护。

Section 9 Physical and Chemical Properties

第九节 物理和化学特性

Physical Properties: 物理状态:	Liquefied Gas 液化气体
Color: 颜色:	Colorless 无色
Odor: 气味:	Odorless(pure) 纯品无臭
Molecular Weight: 分子量:	N/A 不适用
pH: pH:	N/A 不适用
Boiling Point: 沸点:	No data 无数据
Melting/Freezing Point 熔点/冰点	No data 无数据
Flashi point:. 闪点:	No data 无数据
Burning point: 燃点:	No data 无数据
Combustion heat: 燃烧热:	No data 无数据

Volatility: 挥发性:	Gas(under normal temperature and pressure) 常温常压下为气体
Solubility in water 水溶性	Slightly soluble in water 微溶于水
Relative Density: 相对密度:	No data 无数据
Explosion limit(v/v): 爆炸限度% (v/v) :	PROPYLENE Lower explosion limit 2.0%(V/V); Upper explosion limit 11.7%(V/V) PROPANE Lower explosion limit 2.1%(V/V):Upper explosive limit:9.5%(V/V) DIMETHYL ETHER Lower explosion limit 3%(V/V):Upper explosive limit:17%(V/V) 燃烧极限: 丙烯 爆炸下限: 2.0% (V/V) :爆炸上限: 11.7% (V/V) 丙烷 爆炸下限: 2.1% (V/V) :爆炸上限: 9.5% (V/V) 二甲醚 爆炸下限: 3% (V/V) :爆炸上限: 17% (V/V)
Vapour pressure: 蒸气压:	No data 无数据
Relative vapour density: 相对蒸气密度:	No data 无数据
Critical temperature: 临界温度:	No data 无数据
Critical pressure: 临界压力 (mpa) :	No data 无数据

Section 10 Stability and Reactivity

第十节 稳定性和反应性

Stability:Stable at room temperature.

稳定性: 在室温环境中性质稳定。

Conditions to avoid:Heat,high temperature,flames,moist air.

应避免的条件: 热、高温、明火、潮湿空气。

Material to Aviod: Strong oxidizing agents, halogen.

不相容材料: 强氧化剂, 卤素。

Hazardous Decomposition Products: Carbon oxides.

危险的分解产物: 碳的氧化物。

Hazardous Polymerization:Will not occur.

聚合危险: 不发生聚合

Section 11 Toxicological information

第十一节 毒理学信息

Acute Oral LD_{50}

No Data

急性经口毒性 LD_{50}

无数据

Acute dermal LD_{50}	No Data
急性经皮毒性 LD_{50}	无数据
Acute inhalation LD_{50}	No Data
急性吸入毒性 LD_{50}	无数据
Eye Corrosion/irritation	No Data
严重眼损伤/眼刺激	无数据
Skin corrosion/irritation	No Data
皮肤敏化作用	无数据
Potential health effects	No Data
潜在健康影响	无数据
Carcinogenicity	No Data
致癌性	无数据
Target Organ Effects	No Data
目标器官作用	无数据

Section 12 Ecological Information

第十二节 生态信息

Biodegradability: No Data	No Data
生物降解能力	无数据
BOD5 and COD:	No Data
BOD5 以及 COD	无数据
Aquatic Toxicity:	No Data
水生毒性:	无数据
Bio-accumulative Potential:	No Data
生物积累潜力:	无数据

Section13 Disposal Consideration

第十三节 处置考虑

Product:Hand the residual and non recyclable products to processing companies.Contact a licensed professional waste disposal service to dispose of this material.

产吕：将剩余的和未回收的产品交给处理公司。联系专业的拥有废弃物处理执照的机构来处理此物质。

Contaminated packaging:Contact a licensed professional waste disposal service to dispose of this material.

污染了的包装物：联系专业的拥有废弃物处理执照的机构来处理此物质。

Section 14 Transport Information

第十四节 运输信息

Maritime transport IMDG(2012 edition):

海运 IMDG(2012 版):

IMDG Class:2.1

海运分类：第 2.1 项

UN Number:3161

联合国编号: 3161

Packaging group:-

包装类别: -

Marine pollutant:No

海洋污染物: 否

Proper shipping name:LIQUEFIED GAS,FLAMMABLE

正式运输名称: 液化气体, 易燃, 未另作规定的

Air transport ICAO-TI and IATA-DGR(55TH edition):

空运 ICAO-TI 和 IATA-DGR(55 版):

ICAO/IATA Class:2.1

空运分类: 第 2.1 项

UN/ID Number:3161

联合国编号: 3161

Packaging group:-

包装类别: -

Proper shipping name:LIQUEFIED GAS,FLAMMABLE

正式运输名称: 液化气体, 易燃, 未另作规定的

Section 15 Regulatory Information

第十五节 管理信息

CHINA:

Safety Regulation for Hazardous Chemicals:The substance is classed as division 2.1 hazardous chemicals according to Classification and labels of dangerous chemical(GB 13690-2009、GB12268-2012).

中国:

危险品化学吕安全管理条例, 常用危险化学品的分类及标志 (BG13690-2009、GB12269-2012) 将该物质划为第 2.1 项危险化学品。

Section 16 Other Information

第十六节 其他信息

The information is to best of our knowledge and is just used for health,safety and environmental purpose.It shall not be treated as any form of warranty.Please provide a proper training to person who may use,manage of this material and thouse safety-handling persons.

本信息根据我们所掌握的知识所编制, 仅用于健康、安全和环境的目的。请不要将本信息作为任何形式的担保。请对可能使用、处置和需要安全操作本产品的人员提供必要的培训。

Abbreviation':N/A=Not available or Not applicable

缩写: N/A=不适用

Edit Date:October 30,,2015

编制日期: 2015 年 10 月 30 日

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

编制机构: 宁波考尔曼制冷工业有限公司

Update and Revise:the second edition

修订版本: 第二版

Edit Standard:Globally Harmonized System of Classification and Labeling of

Chemicals(5th Reviewed,GHS):Annex 4:guidance on the preparation of safety data sheets(SDS)

编制标准：全球化学品统一分类和标签制度（第五修订版，GHS）：附录 4：编制安全数据单指导

The period of validity of the safety data:

The safety data sheet is based on GHS.TDG,IMDG,IATA-DGR,and “dangerous chemical safety management regulations”and the national standards and other related dangerous chemicals management laws and regulations and standards .The laws and regulations and standards are regularly updated and change.

For the transport of dangerous goods in line with requirements of the new management,the product safety data sheets should be in 2016 October 30 day review and update.

安全数据单有效期：

该安全数据单是根据《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》、《国际海运危险货物规则》、航空运输《危险品规则》、《危险化学品安全管理条例》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。

为使运输的危险货物符合相关最新的管理要求，该产品安全数据单应于 2016 年 10 月 30 日前进行审核更新。