

Safety Data Sheet

CONTACT CLEANER

Version: V1.0.0.1

Report No.: HGNM19HO7L

Creation Date: 2019/09/25

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***Prepared according to GB/T 17519 and GB/T 16483**

1 Identification of the chemical and supplier

Product identifier

Product Name	CONTACT CLEANER
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	Cleaning precision appliances.
Uses advised against	Please consult manufacturer.

Details of the supplier of the Safety Data Sheet

Name of the company	Guangdong Laiya Chemical Co Ltd
Address of the company	Shunfengshan Industrial Zone, Shunde District, Foshan City, Guangdong, P.R.C.
Post code	512029
Telephone number	0751-8526900
Fax number	—
E-mail address	448151624@qq.com

Emergency phone number

Emergency phone number	0532-83889090
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2 Hazards identification

Emergency overview

Gas. Extremely flammable, risk of explosion. May cause serious lung damage if swallowed. Irritating to skin. Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. Use appropriate container to avoid environmental contamination.

Hazard classification according to GHS

Aspiration Hazard	Category 1
Skin Corrosion/Irritation	Category 2
Germ Cell Mutagenicity	Category 1B
Hazardous To The Aquatic Environment – Short-Term (Acute) Hazard	Category 2
Hazardous To The Aquatic Environment –	Category 2

Long-Term (Chronic) Hazard	
Aerosols	Category 1

Label elements

Hazard pictograms	
Signal word	Danger

Hazard statements

H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H340	May cause genetic defects
H401	Toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects
H222+H229	Extremely flammable aerosol; Pressurized container: may burst if heated

Precautionary statements

◆ Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P264	Wash ... thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

◆ Response

P331	Do NOT induce vomiting.
P391	Collect spillage.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P302+P352	IF ON SKIN: Wash with plenty of water.
P308+P313	IF exposed or concerned: Get medical advice/ attention.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

◆ Storage

P405	Store locked up.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

◆ Disposal

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard description

◆ Physical and chemical hazards

Extremely flammable, risk of explosion.

◆ Health hazards

Inhaled

May be fatal if swallowed and enters airways during the course of normal handling.

Ingestion

Due to physical form of this product, considered an unlikely route of entry in commercial/industrial environments.

Skin Contact

The product can cause skin irritation following direct contact with the skin.

Eye

This product may cause temporary discomfort following direct contact with the eye.

◆ Environmental hazards

This product is toxic to aquatic life with long lasting effects. Please refer to 12th chapter of SDS.

3 Composition/information on ingredients

Component	Cas No.	EC No.	Concentration (weight percent, %)
Petroleum ether	8032-32-4	232-453-7	87
Cyclohexane	110-82-7	203-806-2	8
Carbon dioxide	124-38-9	204-696-9	3
Isohexane	73513-42-5	-	2

4 First aid measures**Description of first aid measures**

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

Advice for protecting the rescuer

1	Remove all sources of ignition and increase ventilation.
2	Avoid contact with skin and eyes.
3	Avoid inhalation of vapor or mist.
4	Use personal protective equipment including respirator.

| Special note to the doctor

1	Treat symptomatically.
2	Symptoms may be delayed.

5 Firefighting measures**| Extinguishing media**

Suitable extinguishing media	Dry chemical or carbon dioxide.
Unsuitable extinguishing media	Don't use water spray directly in the leak or safety equipment, otherwise may cause icing.

| Specific hazards arising from the substance or mixture

1	High concentrations of gas may cause asphyxiation without warning.
2	Contact with gas may cause burns, severe injury and/ or frostbite.
3	Containers may explode when heated.
4	May expansion or decompose explosively when heated or involved in fire.

| Fire precautions and protective measures

1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.
4	Cool closed containers exposed to fire with water spray.

6 Accidental release measures**| Personal precautions, protective equipment and emergency procedures**

1	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
2	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
3	Use personal protective equipment. Avoid breathing vapours, mist or gas.

| Environmental precautions

1	Prevent further leakage or spillage if safe to do so.
2	Discharge into the environment must be avoided.

| Methods and materials for containment and cleaning up

1	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
2	Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
3	Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7 Handling and storage**| Precautions for handling**

1	Handling is performed in a well ventilated place.
2	Wear suitable protective equipment.

3	Avoid contact with skin and eyes.
4	Keep away from heat/sparks/open flames/ hot surfaces.
5	Empty containers retain product residue can be dangerous.

Precautions for storage

1	Keep containers tightly closed.
2	Keep containers in a dry, cool and well-ventilated place.
3	Keep away from heat/sparks/open flames/hot surfaces.
4	Store away from incompatible materials and foodstuff containers.
5	Storage temperature should not be higher than 30 °C.

8 Exposure controls/personal protection

Control parameters

◆ Occupational Exposure limit values

Component	Standard	Type	Standard value	remark
Cyclohexane	GBZ 2.1-2007	PC-TWA	250 mg/m ³	-
		PC-STEL	-	
Carbon dioxide	GBZ 2.1-2007	PC-TWA	9000 mg/m ³	-
		PC-STEL	18000 mg/m ³	

◆ Biological limit values

Biological limit values	No relevant regulations
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◆ Monitoring methods

1	EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2	GBZ/T 160.1~GBZ/T 160.81-2004 Determination of toxic substances in workplace air (Series standard) .

Engineering controls

1	Ensure adequate ventilation, especially in confined areas.
2	Ensure that eyewash stations and safety showers are close to the workstation location.
3	Use explosion-proof electrical/ventilating/lighting/equipment.
4	Set up emergency exit and necessary risk-elimination area.
5	Handle in accordance with good industrial hygiene and safety practice.

Personal protection equipment

General requirement	    
Eye protection	Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US).
Hand protection	Wear protective gloves (such as butyl rubber) , passing the tests according to EN 374(EU), US F739 or AS/NZS 2161.1 standard.
Respiratory protection	If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or

	type AXBEK (EN 14387) respirator cartridges.
Skin and body protection	Wear fire/flame resistant/retardant clothing and antistatic boots.

9 Physical and chemical properties

Physical and chemical properties

Appearance	Colorless, aerosol
Odor	Solvent odor
Odor threshold	No information available
pH	Not applicable
Melting point/freezing point(°C)	No information available
Initial boiling point and boiling range(°C)	No information available
Flash point(Closed cup, °C)	< -10
Evaporation rate	Not applicable
Flammability	Extremely flammable
Upper/lower explosive limits[% (v/v)]	Upper limit: No information available; Lower limit: No information available
Vapor pressure	Not applicable
Vapor density(Air = 1)	Not applicable
Relative density(Water=1)	0.64
Solubility(mg/L)	Insoluble in water
n-octanol/water partition coefficient	Not applicable
Auto-ignition temperature(°C)	No information available
Decomposition temperature(°C)	No information available
Viscosity(mm²/s)	Not applicable

10 Stability and reactivity

Stability and reactivity

Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical stability	Stable under proper operation and storage conditions.
Possibility of hazardous reactions	In contact with an open flame may cause a fire or explosion. Reacts with active metals and poses an explosive potential or fire.
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	Oxidantss and halogen. Active metal, alcohols, aldehydes, carbon disulfide, carbon, sulfur, phosphorus, boron, reducing agents, metallic acetylenes and metallic carbonates.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

Acute toxicity

Component	Cas No.	LD ₅₀ (oral)	LD ₅₀ (dermal)	LC ₅₀ (inhalation,4h)
Cyclohexane	110-82-7	12705mg/kg(Rat)	No information available	No information available
Petroleum ether	8032-32-4	No information available	No information available	27.164mg/L(Rat)

Carcinogenicity

ID	Cas No.	Component	IARC	NTP
1	8032-32-4	Petroleum ether	Not Listed	Not Listed
2	110-82-7	Cyclohexane	Not Listed	Not Listed
3	124-38-9	Carbon dioxide	Not Listed	Not Listed
4	73513-42-5	Isohexane	Not Listed	Not Listed

Others

CONTACT CLEANER	
Skin corrosion/irritation	Causes skin irritation
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	Based on available data, the classification criteria are not met
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	May be fatal if swallowed and enters airways
Germ cell mutagenicity	May cause genetic defects
Reproductive toxicity(additional)	Based on available data, the classification criteria are not met

12 Ecological information

Acute aquatic toxicity

Component	Cas No.	Fish	Crustaceans	Algae
Cyclohexane	110-82-7	LC ₅₀ : 42.3mg/L (96h)(Fish)	No information available	No information available

Chronic aquatic toxicity

Chronic aquatic toxicity	No information available
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Persistence and degradability

Component	Cas No.	Persistence (water/soil)	Persistence (air)
Isohexane	73513-42-5	Low	Low
Petroleum ether	8032-32-4	Low	Low

Bioaccumulative potential

Component	Cas No.	Bioaccumulative potential	comments
Isohexane	73513-42-5	Low	Log K _{OW} =3.7056
Petroleum ether	8032-32-4	Medium	Log K _{OW} =3.9

| Mobility in soil

Component	Cas No.	Mobility in soil	Soil Organic Carbon-Water Partitioning Coefficient (K _{OC})
Isohexane	73513-42-5	Low	230.3
Petroleum ether	8032-32-4	Low	149

| Results of PBT and vPvB assessment

Component	Cas No.	Results of PBT and vPvB assessment (according to (EC) No 1907/2006)
Petroleum ether	8032-32-4	not PBT/vPvB
Cyclohexane	110-82-7	not PBT/vPvB
Carbon dioxide	124-38-9	not PBT/vPvB
Isohexane	73513-42-5	not PBT/vPvB



13 Disposal considerations

| Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section 13.1 and 13.2.

14 Transport information

| Label and Mark

Transporting Label	
Marine pollutant	

| IMDG-CODE

UN number	1950
UN proper shipping name	AEROSOLS
Transport hazard class	2.2
Transport subsidiary hazard class	None

Packing group	Not applicable
Special provisions	63 190 277 327 344 959
Limited quantities	See SP277
Excepted quantities	E0
Marine pollutant (Yes or no)	Yes
EmS No.	F-D,S-U

| ICAO/IATA-DGR

UN number	1950
UN proper shipping name	AEROSOLS
Transport hazard class	2.2
Transport subsidiary hazard class	None
Packing group	Not applicable
Excepted quantities	E0
Passenger and Cargo Aircraft Limited Quantity Packing Instructions	Y203 containing biological products or a medicinal preparation which will be deteriorated by a heat test: Y204
Passenger and Cargo Aircraft Limited Quantity Maximum net Quantity per Package	30 kg G
Passenger and Cargo Aircraft Packing Instructions	203 containing biological products or a medicinal preparation which will be deteriorated by a heat test: 204
Passenger and Cargo Aircraft Maximum net Quantity per Package	75 kg
Cargo Aircraft Packing Instructions	203 containing biological products or a medicinal preparation which will be deteriorated by a heat test: 204
Cargo Aircraft Maximum net Quantity per Package	150 kg
Special provisions	A98、A145、A167 A802
ERG code	2L

| UN-ADR

UN number	1950
UN proper shipping name	AEROSOLS
Transport hazard class	2.2
Transport subsidiary hazard class	None
Packing group	Not applicable
Special provisions	190 327 344 625
Limited quantities	1 L
Excepted quantities	E0
Packing instructions	P207 LP02

Special packing provisions	PP87 RR6 L2
Mixed packing provisions	MP9
Protable tanks and bulk containers instructions	-
Protable tanks and bulk containers special provisions	-
ADR tank code	-
ADR tank special provisions	-
Vehicle for tank carriage	-
Transport category(Tunnel restriction code)	3 (E)
Special provisions for carriage(Packages)	V14
Special provisions for carriage(Bulk)	-
Special provisions for carriage>Loading, unloading and handling)	CV9 CV12
Special provisions for carriage(Operation)	-
Hazard identification No.	-
Notes	-

Others

Methods of packing	Steel cylinders and other pressure vessel. Packaging as recommended by manufacturer.
Precautions for transport	Shipment of the goods vehicle exhaust pipe must be equipped with fire retardant devices, prohibit using mechanical equipment and toolsof which easy to produce sparks. Strictly prohibited shipping or transportation with oxidants, halogens etc. Height shall not exceed the vehicle fence board, and with a triangular wooden pad cards firmly to prevent rolling. Cylinders generally flat, and the bottles should be in the same direction, should not cross. A safety helmet must be fitted for cylinder transport. Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant transporting requirements.

15 Regulatory information

International chemical inventory

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AICS	ENCS
Petroleum ether	✓	✓	✓	✓	✓	✓	✓	✓	✗
Cyclohexane	✓	✓	✓	✓	✓	✓	✓	✓	✓
Carbon dioxide	✓	✓	✓	✓	✓	✓	✓	✓	✓
Isohexane	✗	✗	✗	✓	✓	✗	✗	✗	✓

- 【EINECS】 European Inventory of Existing Commercial Chemical Substances
 【TSCA】 United States Toxic Substances Control Act Inventory
 【DSL】 Canadian Domestic Substances List
 【IECSC】 China Inventory of Existing Chemical Substances
 【NZIoC】 New Zealand Inventory of Chemicals
 【PICCS】 Philippines Inventory of Chemicals and Chemical Substances
 【KECI】 Existing and Evaluated Chemical Substances
 【AICS】 Australia Inventory of Chemical Substances
 【ENCS】 Existing And New Chemical Substances

Chinese chemical inventory

Component	A	B	C	D	E	F	G	H
Petroleum ether	✓	×	×	×	×	×	×	×
Cyclohexane	✓	×	×	×	×	×	×	×
Carbon dioxide	✓	×	×	×	×	×	×	×
Isohexane	×	×	×	×	×	×	×	×

【A】 Catalog of Hazardous Chemicals(2015 Edition), Notice 5th 2015, China State Administration of Work Safety.

【B】 Catalog of Priority Hazardous Chemicals for Environment Management, Notice 33th 2014, Ministry of Environmental Protection of PRC.

【C】 List of Toxic Chemicals Restricted in China, Notice 74th 2017, Ministry of Environmental Protection of PRC.

【D】 Catalog of Stupefacient and Psychotropic Substances(2013Edition), Notice 230th 2013, China Food and Drug Administration.

【E】 Catalog of Hazardous Chemicals for Priority Management (First and Second batches) , Notice 95th, 2011, Notice 12th 2013, China State Administration of Work Safety.

【F】 List of Ozone Depletion Chemicals Controlled to be Imported/Exported in China (First to Sixth batches) , Notice from 2000 to 2012 Ministry of Environmental Protection of PRC.

【G】 Dangerous Chemicals Directory Used to Manufacture Exploder(2017 Edition), Notice 11th May. 2017, Ministry of Public Security of PRC1.

【H】 Catalog of Highly Toxic Chemicals, Notice 142th 2003, China Ministry of Health.

Note

"✓" Indicates that the substance included in the regulations

"×" That no data or included in the regulations

16 Others

Information on revision

Creation Date	2019/09/25
Revision Date	2019/09/25
Reason for revision	-

Reference

[1]IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>.

[2]IARC, website: <http://www.iarc.fr/>.

[3]OECD: The Global Portal to Information on Chemical Substances, website:

http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en.

[4]CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.

[5]NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.

[6]EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.

[7]U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.

[8]Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

Abbreviations and acronyms

CAS –Chemical Abstracts Service

PC-STEL- Short term exposure limit

DNEL - Derived No Effect Level

RPE - Respiratory Protective Equipment

LC₅₀ - Lethal Concentration 50%

NOEC -No Observed Effect Concentration

PBT - Persistent, Bioaccumulative, Toxic

BCF - Bioconcentration factor (BCF)

IMDG-International Maritime Dangerous Goods

UN-The United Nations

NFPA-National Fire Protection Association

CMR - Carcinogens, mutagens or substances toxic to reproduction

PC-TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

PNEC –Predicted No Effect Concentration

LD₅₀ - Lethal Dose 50%

EC₅₀ - Effective Concentration 50%

POW - Partition coefficient Octanol: Water

vPvB - very Persistent, very Bioaccumulative

ICAO/IATA-International Civil Aviation Organization/International Air Transportation Association

ACGIH-American Conference of Governmental Industrial Hygienists

OECD-Organization for Economic Co-operation and Development

Disclaimer

This Safety Data Sheet (SDS) was prepared according to GB/T16483 and GB/T17519. The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user' s reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.