

Safety Data Sheet

According to GHS Purple Book Rev 3-7



CIF Disinfectant Floor Cleaner

Revision Date Nov 30 2017
Active Version V01
SDS Number CT-UL-HK-01
Date of 1st Ver. Nov 30 2017

Section 1: Identification

1.1 Product Identifier

Product Name CIF Disinfectant Floor Cleaner
Other Names Disinfectant Floor & General Purpose Cleaner

1.2 Recommended Uses

Intended Uses Cleaning, Disinfecting, and Deodorizing floors and hard surfaces
Restrictions on use NOT for use on hands and skin; NOR for use on pets, livestock, and wild animals

1.3 Supplier's Details

Clean Tech Hygiene Limited
#12 Fuzhong Road, Banfu Zhongshan, 528459 Guangdong China
Tel +86 760 2816 2866; Fax +86 760 2816 2863

1.4 Emergency phone number

+86 139 2810 4606 (China Time 0900-1700 Monday-Friday) for Sections 3, 9, and 10

Section 2: Hazard Identification

This product is a blue clear liquid, pH neutral, irritant to skin and eyes

2.1 Classification of the product

Skin Irritation Category 2
Eye Irritation Category 2

2.2 Label Elements

GHS Pictogram



Signal Word

Warning

Hazard Statement

H315 - Causes skin irritation
H319 - Causes serious eye irritation

Preventional Statement

P264 - Wash face, hands and any exposed skin thoroughly after handling.
P280 - Wear protective gloves, protective clothing and eye or face protection.

Response Statement

P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 - If skin irritation occurs: Get medical advice or attention.
P337+P313 - If eye irritation persists: Get medical advice or attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P321 - Specific treatment (see supplemental first aid instructions on the label).

Storage Statement

Keep in closed container in a dry place of ambient temperature (5-35C)

Disposal Statement

P501 - Dispose of contents/container in accordance with local or national, or regional regulations

2.3 Other hazards

No other hazards known

Section 3: Composition/Information on Ingredients

Ingredients	CAS No.	% (w/w)
N-12/13 Alkyl-N-benzyl-N,N-dimethylammonium chloride	85409-22-9	0.1-1.5
α -12/14 Alkyl- ω -hydroxy nonapoly(oxyethylene) polymers	68439-50-9	0.1-1.4
2-(4-Methyl-1-cyclohex-3-enyl)propan-2-ol	8000-41-7	0.1-1.0

Section 4: First-aid Measures

Skin Contact	Wash with plenty of soap and water. If skin irritation occurs, get medical attention.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention
Clothing Contact	Take off contaminated clothing and wash it before reuse

Section 5: Fire-fighting Measures**5.1 Extinguishing media**

Suitable Media Regular foam, carbon dioxide, dry powders, alcohol-resistant foam, water spray jet

Unsuitable Media Do not use a heavy water stream. Use of heavy stream of water may spread the fire

5.2 Special hazards arising from this product

May be heated to decomposition and release toxic or harmful nitrogen oxides, aminomethane, ammonia, chloromethane, methanol, hydrogen chloride, and hydrocarbons.

5.3 Advice for firefighters

As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

Section 6: Accidental Release Measures**6.1 Personal precautions, protective equipment and emergency procedures**

General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe vapor, mist or spray.

6.1.1. For Non-Emergency Personnel

Protection: Wear suitable protective clothing, gloves and eye/face protection.

Procedures: Evacuate unnecessary personnel. Stop leak if safe to do so.

6.1.2. For Emergency Personnel

Protection: Wear suitable protective equipment including respiration (see Subsection 8.2)

Do not touch the spilled material unless wearing appropriate protective equipment

Procedures: Stop leaking sources. Keep unauthorized personnel away.

Contain the spillage/leaks, and Clean up the area and facilities

6.2 Environmental precautions

Do not allow a large scale leakage to enter drainage system, surface or ground water.

Dilute a small spillage with plenty of water before discharge into sewers, see Subsection 8.2.3

6.3 Methods and material for containment and cleaning

up Dike the large-scale leakage away from waterways and sewers

Collect the leakage and place in suitable containers for disposal in accordance with local regulations

Absorb small spillage with liquid-binding material (sand, diatomite, universal binders, sawdust).

Or flush with water to clean small spillage into sewers if local regulations allow doing so

Section 7: Handling and Storage**7.1 Precautions for safe handling**

General Measures: Read the product label, SDS, or/and product information sheet (PIS) before use. Do not mix with any other chemicals without consulting with the PIS and experts

Personal Safety: Wear gloves, glasses, and protective clothing to avoid eyes/skin contact of chemical
Wear suitable respiration equipment where product forms mist, spray, or aerosol

Measures to prevent fire and explosions (including warning on disposal of empty containers):

Not applicable

Measures required to protect the environment:

Do not discharge any amount of undiluted product into sewers and septic tanks

Dilute small amount of product with >200 parts of water before discharging

Dispose the empty canister/bottles in accordance with local regulations

Advices on general occupational hygiene:

Eating, drinking and smoking in work areas is prohibited

Wash face, hands and any exposed skin thoroughly after handling

Take off contaminated clothing and protective equipment before entering eating areas

Wash contaminated clothing before reuse

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions: Temperature 5 ~ 37C
Direct sunlight to avoid exposure under direct sunlight
Humidity RH < 85%
Ventilation Normal ventilation as in a warehouse designed properly
Vibration Not applicable

Risk control points: Ignition sources Not applicable
Static charge Not applicable
Lightning Not applicable
Corrosive release Not applicable
quantity limits Not applicable

Incompatibilities Metal sodium / potassium / lithium; Strong oxidizers; Phosphorus pentoxide

Section 8: Exposure controls / Personal protection**8.1 Control Parameters**

8.1.1 Permissible Concentrations by Competent Authorities

Ingredients	OELs	ACGIH		NIOSH		GBZ 2.1	
		2002 USA		2017 USA		2007 China	
		TWA	STEL	TWA	STEL	TWA	STEL
N-12/13 Alkyl-N-benzyl-N,N-dimethylammonium chloride		Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
α-12/14 Alkyl-ω-hydroxy nonapoly(oxyethylene) polymers		Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
2-(4-Methyl-1-cyclohex-3-enyl)propan-2-ol		Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

8.1.2 Derived No Effect Level (DNEL) according to Regulation (EC) 1907/2006

Ingredient: *N-12/13 Alkyl-N-benzyl-N,N-dimethylammonium chloride. CAS 85409-22-9*

End User	Exposure Routes	Potential Health Effects	DNEL Value
Workers	Inhalation	Long-term systemic effects	3.96 mg/m ³
Workers	Dermal	Long-term systemic effects	5.7 mg/Kg body weight/day
the Public	Inhalation	Long-term systemic effects	1.64 mg/m ³
the Public	Dermal	Long-term systemic effects	3.4 mg/Kg body weight/day
the Public	Oral	Long-term systemic effects	3.4 mg/Kg body weight/day

Ingredient: *α-12/14 Alkyl-w-hydroxy nonapoly(oxyethylene) polymers. CAS 68002-97-1*

Data not available

Ingredient: *2-(4-Methyl-1-cyclohex-3-enyl)propan-2-ol. CAS 8000-41-7*

Data not available

8.2 Exposure controls

8.2.1 Engineering Controls

Adequate ventilation available when product is sprayed/misted/aerosolized	Yes
Eye wash fountains and safety showers in the right vicinity of work areas	Yes
Gas detectors installation	Not applicable
Good grounding and static charge eliminating systems	Not applicable
Explosion-proof equipment	Not applicable
Use only in an enclosed system	Not applicable
Use mechanical handling	Not applicable
Use explosive dust handling controls	Not applicable

8.2.2 Personal Protective Equipment (PPE)

<u>Eye/Face</u>	Safety glasses or goggles (EN 166).
<u>Hands</u>	Chemical-resistant protective gloves (EN 374). Gloves for Prolonged contact Material: Butyl Ruber Penetration time: not less than 480 minutes Material thickness: not less than 0.70 mm Gloves for protection against splashes Material: Nitrile Rubber Penetration time: Not less than 30 minutes Material thickness: Not less than 0.40 mm Consult with PPE suppliers for similar type of gloves
<u>Body</u>	Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur (EN 14605)
<u>Respiratory</u>	No requirements under normal use conditions unless product is used as spray, mist, or aerosol

8.2.3 Environmental exposure controls

Do not discharge any amount of undiluted product into sewers and septic tanks
Dilute small amount of product with >200 parts of water before discharging
Dispose the empty canister/bottles in accordance with local regulations

Section 9: Physical and Chemical Properties

Physical state	Liquid
Colour and Appearance	Blue, transparent
Odour	Pine oil like
Melting point / freezing point	around 0C
Boiling point or initial boiling point and boiling range	around 100C
Flammability	Not flammable
Lower and upper explosion limit/ flammability limit	Not applicable
Flash point	Not applicable
Auto-ignition temperature	Not applicable
Decomposition temperature	> 150C
pH neat	6.5-7.5
Acid/alkaline reserve (as Na ₂ O)	0.0%
Kinematic viscosity mm ² /s	< 50
Solubility	Miscible with water
Partition coefficient n-octanol / water (log value)	Not applicable
Vapour Pressure	Not applicable
Density and/or relative density	0.98-1.020 g/mL
Relative vapour density	Not applicable
Particle characteristics	Not applicable

Section 10: Stability and Reactivity

10.1 Reactivity

The product is of very low reactivity.

It is pH neutral, contains >95% water, and its ingredients are of very low reactivity,

10.2 Chemical stability

Stable under normal storage and use conditions.

10.3 Possibility of hazardous reactions

Under normal storage and use conditions

- No hazardous reactions
- No polymerization
- No release of excess heat or pressure
- No creating other hazardous conditions

10.4 Conditions to avoid

Metal sodium / potassium / lithium; Strong oxidizers; Phosphorus pentoxide

10.5 Incompatible materials

Metal sodium / potassium / lithium; Strong oxidizers; Phosphorus pentoxide and any other materials incompatible with water

10.6 Hazardous decomposition products

Under extreme conditions (e.g. a major fire)

May be heated to decomposition and release toxic or harmful nitrogen oxides, aminomethane, ammonia, chloromethane, methanol, hydrogen chloride, and hydrocarbons.

Section 11: Toxicological Information

11.1 Relevant data of the Mixture as a whole

pH neat	6.5-7.5
Acid/alkaline reserve (as Na ₂ O)	0.00%
Moisture content	> 95%
Use dilution or Dosage	1 part into 10 part of water

11.2 Toxicological & Health effects of the relevant ingredients

Names of GHS Classes	Ingrédients N-12/13 Alkyl-N-benzyl-N,N-dimethylammonium chloride	α-12/14 Alkyl-ω-hydroxy nonapoly(oxyethylene) polymers	2-(4-Methyl-1-cyclohex-3-enyl)propan-2-ol	Acute Toxicity Estimate (Oral) of the mixture as a whole	Classification of the mixture as a whole	Category name if classified as a whole
(a) acute toxicity, ATE Oral	500 mg/Kg	500 mg/Kg	2500 mg/Kg	19800 mg/Kg	not classified	
(b) skin corrosion/irritation	Category 1B	Category 2	Category 2		Classified	Category 2
(c) serious eye damage/irritation	Category 1	Category 1	Category 2		Classified	Category 2
(d) respiratory or skin sensitization	Not classified	Not classified	Not classified		Not classified	
(e) germ cell mutagenicity	Not classified	Not classified	Not classified		Not classified	
(f) carcinogenicity	Not classified	Not classified	Not classified		Not classified	
(g) reproductive toxicity	Not classified	Not classified	Not classified		Not classified	
(h) STOT-single exposure	Not classified	Not classified	Not classified		Not classified	
(i) STOT-repeated exposure	Not classified	Not classified	Not classified		Not classified	
(j) aspiration hazard	Not classified	Not classified	Not classified		Not classified	

Section 12: Ecological information

12.1 Ecological data

Ecological data	N-12/13 Alkyl-N-benzyl-N,N-dimethylammonium chloride	α-12/14 Alkyl-ω-hydroxy nonapoly(oxyethylene) polymers	2-(4-Methyl-1-cyclohex-3-enyl)propan-2-ol
(a) Toxicity			
LC50 (zebra fish 96h oecd 203)	1-10 mg/L	Data not available	80 mg/L
EC50 (water flea 48h US-EPA FIFRA 72-2)	0.0058 mg/L	2.6-3.7 mg/L	73 mg/L
E50 (green algae 72h oecd 201)	0.049 mg/L	Data not available	Data not available
ErC50 (cosmarium, 72h)	Data not available	1.5 mg/L	Data not available
NOEC (daphnia 21d oecd 211, End point: Reproduction rate)	0.025 mg/L	Data not available	Data not available
EC50 (bacteria oecd 209)	17 mg/L	Data not available	Data not available
M-Factor (Acute aquatic toxicity)	10	Data not available	Data not available
M-Factor (Chronic aquatic toxicity)	1	Data not available	Data not available
(b) Persistence and degradability			
Biodegradability (oecd 302B)	35-70%	Data not available	Data not available
Biodegradability (oecd 301A)	> 80%	Data not available	Data not available
Biodegradability (oecd 301F)	Data not available	> 70% (28d)	80% (28d)
COD	400 mg/g	Data not available	Data not available
DOC	100 mg/g	Data not available	Data not available
(c) Bio-accumulative potential			
Log Pow (estimation)	Data not available	3.95	3.1
BCF (Fish estimated)	Data not available	187	24.13
(d) Mobility in soil			
	Data not available	Data not available	Data not available
(e) Other adverse effects			
	Data not available	Data not available	Data not available

12.2 PNEC (Predicted No Effect Concentration according to Regulation (EC)1907/2006)

	N-12/13 Alkyl-N-benzyl-N,N-dimethylammonium chloride	α -12/14 Alkyl- ω -hydroxy nonapoly(oxyethylene) polymers	2-(4-Methyl-1-cyclohex-3-enyl)propan-2-ol
Fresh Water	0.0009 mg/L	Data not available	Data not available
Salt Water	0.00096 mg/L	Data not available	Data not available
Water (intermittent release)	0.00016 mg/L	Data not available	Data not available
Sewage treatment plant	0.4 mg/L	Data not available	Data not available
Fresh Water Sediment	12.27 mg/Kg dry weight		
Marine Sediment	13.09 mg;Kg dry weight	Data not available	Data not available
Soil	7 mg/Kg dry weight	Data not available	Data not available

12.3 Competent authorities' Listing as marine pollutants

Names of lists	N-12/13 Alkyl-N-benzyl-N,N-dimethylammonium chloride	α -12/14 Alkyl- ω -hydroxy nonapoly(oxyethylene) polymers	2-(4-Methyl-1-cyclohex-3-enyl)propan-2-ol
UN TDG Dangerous Goods List 2015	Not listed as a marine pollutant	Not listed as a marine pollutant	Not listed as a marine pollutant
Marine Pollutant List (Note 1)	Not listed as a marine pollutant	Not listed as a marine pollutant	Not listed as a marine pollutant
Annex VI to EU CLP Regulation (ATP10)	Listed as aquatic acute category 1	Not listed as a marine pollutant	Not listed as a marine pollutant
China Catalogue of Hazardous Chemicals (2015)	Not listed as a marine pollutant	Not listed as a marine pollutant	Not listed as a marine pollutant

Note 1 a table excerpted from *Haz Mat Data 2nd Edition by Richard P Pohanish 2004*

Section 13: Disposal Considerations

Since this product is a germicide, it may adversely affect the bacteria systems in city sewers and domestic effluent treatment if not be properly disposed

13.1 Disposal Methods

Spills or Residual Waste	Aborbed with some compatible aborbents (note 2), then disposed as a solid waste, if local regulations allow to do so
	Dilute with >200 parts of water before discharging into sewers, if local regulations allow to do so
Large amount of Leaks or Waste or Expired batches	Used as a general purpose cleaner instead of a disinfectant cleaner, if local regulations allow to do so
	Sent to a government authorized / qualified waste treatment plant. Remind the plant of the germicide content before dispatch
	Incineration of this product is not economical since the product contains >95% water
Empty Canisters / Drums	Disposed in accordance with local regulations

Note 2 the examples for liquid aborbents (liquid-binding materials) are, sand, diatomite, universal binders, sawdust, etc

13.2 Personal Protective Equipment

See Subsection 8.2.2

Section 14: Transport Information

The information in this section was prepared in accordance with UN TDG Model Regulations Rev 19

14.1 UN number

This is a Non-dangerous goods

14.2 UN proper shipping name

Not Applicable

14.3 Transport hazard classes

This is a Non-dangerous goods

14.4 Packing group

Not Applicable

14.5 Environmental hazards / Marine Pollutants

Not a marine pollutant

14.6 Special precautions for user

None

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC

Code The product is not transported in bulk tankers.

Section 15: Regulatory information**15.1 Country Inventory Listing**

		N-12/13 Alkyl-N-benzyl-N,N-dimethylammonium chloride CAS No 85409-22-9	α -12/14 Alkyl- ω -hydroxy nonapoly(oxyethylene) polymers CAS No 68439-50-9	2-(4-Methyl-1-cyclohex-3-enyl)propan-2-ol CAS No 8000-41-7
USA	TSCA	Not listed (note 3)	Listed	Listed
EU	REACH	Listed	Listed	Registered
China	IECSC	Listed	Listed	Listed
Japan	ENCS	Listed	Listed	Listed
Canada	DSL	Listed	Listed	Listed
AU	AICS	Listed	Listed	Listed
NZ	NZIoC	Listed	Listed	Listed
Korea	KECI	Listed	Listed	Listed
Phils	PICCS	Listed	Listed	Listed
ASEAN		Data not available		

Note 3 Instead, USA listed a similar variant CAS 63449-41-2

15.2 Harmonized or Mandatory lists of Hazardous Chemicals by Competent Authorities

Names of lists	N-12/13 Alkyl-N-benzyl-N,N-dimethylammonium chloride CAS No 85409-22-9	α -12/14 Alkyl- ω -hydroxy nonapoly(oxyethylene) polymers CAS No 68439-50-9	2-(4-Methyl-1-cyclohex-3-enyl)propan-2-ol CAS No 8000-41-7
UN TDG Dangerous Goods List Rev 19, 2015	Not listed	Not listed	Not listed
Annex VI to EU CLP Regulation (ATP10)	Not listed (Note 4)	Not listed	Not listed
China Catalogue of Hazardous Chemicals (2015)	Not listed	Not listed	Not listed

Note 4 A similar variant CAS 63449-41-2 was listed as a harmonized hazardous chemical

15.3 Lists of Chemicals Restricted / Controlled by P.R.China

Names of the Lists	N-12/13 Alkyl-N-benzyl-N,N-dimethylammonium chloride	α -12/14 Alkyl- ω -hydroxy nonapoly(oxyethylene) polymers	2-(4-Methyl-1-cyclohex-3-enyl)propan-2-ol
	CAS No 85409-22-9	CAS No 68439-50-9	CAS No 8000-41-7
List of Toxic Chemicals Restricted to be Imported/ Exported	Not listed	Not listed	Not listed
Inventory of Prohibited Chemicals	Not listed	Not listed	Not listed
List of Hazardous Chemicals for Priority Management- SAWS	Not listed	Not listed	Not listed
Catalogue of Precursors and Chemicals used in Production of Narcotic Drugs and Psychotropic Substances	Not listed	Not listed	Not listed
List of Toxic Substance by Ministry of Public Health 2002 (note 5)	Not listed	Not listed	Not listed
List of Highly Substance by Ministry of Public Health 2003 (note 5)	Not listed	Not listed	Not listed

Note 5 The list is under Decree 352 by State Council: Regulations of Labor Protection on use of toxic substances in workplace

Section 16: Other Information

The information in this document is based on our current knowledge, and is intended to describe the product for the purpose of meeting the requirements in safety, health and environment only. it does not constitute a guarantee for any specific product properties, nor establish a legally binding contract.

Abbreviations and acronyms used in this document

ATE	Acute Toxicity Estimate (mg/KG Body weight)
LD50	The amount of a chemical, given all at once, which causes the death of 50% of a group of test animals (mg/KG Body weight)
LC50	The concentration of a chemical in air or of a chemical in water which causes the death of 50% of a group of test animals (mg/L or mg/Kg, or ppm)
EC50	The effective concentration of substance that causes 50% of the maximum response
ErC50	EC50 in terms of reduction of growth rate
NOEC	No observed effect concentration
PNEC	Predicted No Effect Concentration according to Regulation (EC)1907/2006
M-Factor	Multiplying factors for highly toxic ingredients of mixtures. See Table 4.1.5 in GHS Purple book 2017
log Pow	Octanol/Water partition coefficient, usually reported as log Kow determined by OECD Test Guideline 107, 117 or 123
BCF	BioConcentration Factor
STOT-se	Specific target organ toxicity – single exposure
STOP-re	Specific target organ toxicity – repeated exposure
REACH	a European Union regulation concerning the Registration, Evaluation, Authorisation and restriction of Chemicals. It came into force on 1st June 2007 and replaced a number of European Directives and Regulations
GHS	Globally Harmonised System of Classification and Labelling of Chemicals (The Purple Book)
UN TDG	UN Model Regulations on Transport of Dangerous Goods (The Orange Book)
CAS	Chemical Abstracts Service (a division of the American Chemical Society)
TSCA	Toxic Substances Control Act Inventory, USA
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China

ENCS	Inventory of Existing and New Chemical Substances, Japan
DSL	Domestic Substances List, Canada
AICS	Australian Inventory of Chemical Substances
NZIoC	New Zealand Inventory of Chemicals
KECI	Korea Existing Chemicals List
PICCS	Philippine Inventory of Chemicals and Chemical Substances
CLP	The C lassification, L abelling and P ackaging Regulation (EC 1272/2008) is based on GHS. It is the only legislation in force in the EU for classification and labelling of substances and mixtures.
ATP 10	10th Adaption to Technical Progress, i.e.Commission Regulation (EU) No 2015/1221 amending. It is Table 3.1 of Annex VI to CLP Regulation,containing the substances with harmonised classification and labelling
EN	Marker for European Standards
GB	Marker for National Standards of P.R.China
GBZ	Marker for National Occupational Standards of P.R.China
SAWS	State Administration of Workplace Safety, P.R.China
OSHA	Occupational Safety and Health Administration, USA
PPE	Personal Protective Equipment
RH	Relative Humidity (%)
OELs	Occupational Exposure Limits
DNEL	Derived No Effect Level according to Regulation (EC) No. 1907/2006 It is the level of exposure to a substance above which humans should not be exposed
TWA	Its full name is PC-TWA: Permissible Concentration - Time Weighted Average
STEL	Its full name is PC-STEL: Permissible Concentration - Short Time Exposure Limit
COD	Chemical Oxygen Demand
DOC	Dissolved organic carbon
ACGIH	American Conference of Governmental Industrial Hygienists,USA
NIOSH	National Institute for Occupational Safety and Health,USA
EPA	United States Environmental Protection Agency
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
OECD	Organization for Economic Cooperation and Development. Here OECD is specifically referring to a test method developed and published by OECD

***** **End of Safety Data Sheet** *****