1. PRODUCT AND COMPANY IDENTIFICATION

Product name	Chloroform
Synonyms	Trichloromethane, Methylidyne trichloride
Grade	ACS, HPLC, Pesticide, Anapremium, Dehydrous
Company	Anaqua Chemicals Supply
	1510 Eldridge Parkway, Suite 110-268 Houston, TX 77077, USA
Telephone	(281) 668-0032
Fax	(281) 668-0033

2. COMPOSITION/ INFORMATION ON INGREDIENTS

Formula	$CHCl_3$
CAS-No.	67-66-3
Index-No.	602-006-00-4
Ec-No.	200-663-8
Concentration	≥ 98 %

3. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity, Oral	Category 4
Skin irritation	Category 2
Carcinogenicity	Category 2
Specific target organ toxicity - repeated exposure	Category 2

According to European Directive 67/548/EEC as amended.

Limited evidence of a carcinogenic effect. Harmful if swallowed. Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed. Irritating to skin.

4. FIRST AID MEASURES

Inhalation	If breathed in, move to fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician immediately.
Skin Contact	Immediately wash off with soap and plenty of water. Consult a physician.
Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes. Consult a physician.

Most important symptoms and effects, both acute and delayed

Vomiting, Gastrointestinal disturbance, Exposure to and/or consumption of alcohol may increase toxic effects., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Indication of immediate medical attention and special treatment needed

No available information

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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Specific hazards during fire fighting	Carbon oxides, Phosgene, Chlorine Carbon oxides, Hydrogen chloride gas
Special protective equipment for fire-fighters	Wear self contained breathing apparatus for fighting fire if necessary.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up	Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. For disposal see section 13.

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7. HANDLING AND STORAGE

Handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Normal measures for preventive fire protection.
Storage	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

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8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Occupational exposure controls

Engineering Measures	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective Equipment

Respiratory protection	Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)
Skin protection	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
Eye / face protection	Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Body protection	Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid, clear
Color	Colorless
pH	No available information
Melting point	-63 ℃ (-81.4 ℉)
Boiling point	60.5 ℃ (140.9 ℉)
Flash point	No available information
Autoignition temperature	No available information
Lower explosion limit	No available information
Upper explosion limit	No available information
Vapor pressure	213.3 hPa at 20.0 ℃ (68.0 ℉)
Density	1.492 g/mL at 25 ℃ (77 ℉)
Water solubility	No available information
Partition coefficient: n-octanol/ water	log Pow: 1.97
Molecular weight	119.38
Decomposition temperature	No available information
Viscosity	No available information
Explosive properties	No available information
Oxidizing properties	No available information
Surface tension	27.1 mN/m at 20.0 ℃ (68.0 ℉)

10. STABILITY AND REACTIVITY

Storage stability	No available information
	Contains the following stabiliser(s): 2-Methyl-2-butene
Conditions to avoid	No available information
Materials to avoid	Strong oxidizing agents, Strong bases, Magnesium, odium/sodium oxides, Lithium
Hazardous decomposition products	No available information

11. TOXICOLOGICAL INFORMATION

Acute toxicity		LD50 Oral 695.0 mg/kg (Rat) Remarks: Behavioral: Change in motor activity (specific assay). Behavioral: Ataxia. Lungs, Thorax, or Respiration:Respiratory stimulation. LD50 Dermal 3,980 mg/kg (Rabbit) LC50 Inhalation 47,702 mg/m^3 (Rat) 4 h
Skin irritation		Mild skin irritation (Rabbit) 24 h
Eye irritation		eye irritation (Rabbit) 24 h
Sensitization		No available information
Germ cell mutagenicity		Laboratory experiments have shown mutagenic effects.
Specific target organ toxicity – single exposure (GHS)		No available information
Specific target organ toxicity – repeated exposure (GHS)		May cause damage to organs through prolonged or repeated exposure.
Carcinogenicity		Carcinogenicity - rat - Oral Tumorigenic: Carcinogenic by RTECS criteria. Leukaemia This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. The National Cancer Institute (NCI) has found clear evidence for carcinogenicity. Limited evidence of carcinogenicity in animal studies IARC: 2B - Group 2B: Possibly carcinogenic to humans (Chloroform)
Reproductive toxicity		No available information
Aspiration hazard		No available information
Potential health effects	**Inhalation**	Harmful if inhaled. May cause respiratory tract irritation.
	Ingestion	Harmful if swallowed.
	Skin	Harmful if absorbed through skin. May cause skin irritation.
	Eyes	Causes serious eye irritation
Signs and Symptoms of Exposure		Vomiting, Gastrointestinal disturbance, Exposure to and/or consumption of alcohol may increase toxic effects., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Additional Information		RTECS: FS9100000

12. ECOLOGICAL INFORMATION

Ecotoxicity	
Persistence and degradability	No available information
Toxicity to fish	LC50 - 162 mg/l (Leuciscus idus (Golden orfe)) 48 h
	LC100 - 220 mg/l (Leuciscus idus (Golden orfe)) 48 h
	LC50 - 97 mg/l (other fish) 96 h
	LC50 - 121 mg/l (Danio rerio (zebra fish)) 96 h
	NOEC - 122 mg/l (Oryzias latipes) 10 d
	NOEC - 24 mg/l (Oncorhynchus mykiss (rainbow trout)) 96 h
Toxicity to daphnia and other aquatic invertebrates	EC50 - 79.00 mg/l (Daphnia magna (Water flea)) 24 h
	Immobilization EC50 – 51.6 mg/l (Daphnia magna (Water flea)) 48 h
	NOEC - 120 mg/l (Daphnia magna (Water flea)) 11 d
Toxicity to algae	EC50 – 500.00 mg/l - 24 h
Bioaccumulative potential	0.11 mg/l (Lepomis macrochirus (Bluegill)) 14 d
	Bioconcentration factor (BCF): 6
Results of PBT and vPvB assessment	No available information
Mobility	No available information
Other adverse effects	Harmful to aquatic life.

13. DISPOSAL CONSIDERATIONS

Product	Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
Contaminated packaging	Dispose of as unused product.

14. TRANSPORT INFORMATION

IATA

UN-Number: 1888 Class: 6.1 Packing group: III

Proper shipping name: Chloroform

IMDG

UN-Number: 1888 Class: 6.1 Packing group: III

Proper shipping name: Chloroform

EMS-No. F-A, S-A

DOT (US)

UN-Number: 1888 Class: 6.1 Packing group: III

Proper shipping name: Chloroform

Marine pollution: No

15. REGULATORY INFORMATION

Hazard statements

H302: Harmful if swallowed

H315: Causes skin irritation

H351: Suspected of causing cancer

H373: May cause damage to organs through prolonged or repeated exposure

Precautionary statements

P281: Use personal protective equipment as required

GHS-Labeling

Pictogram

Signal word *Warning*

Labeling according to EC Directive

Symbol(s): Xn - Harmful

R-phrase(s): 22-38-40-48/20/22

Harmful if swallowed. Irritating to skin. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

S-phrase(s): 36/37

Wear suitable protective clothing and gloves.

16. OTHER INFORMATION

 The information, data, and recommendations in this material safety data sheet relate only to the specific material designated herein and do not relate to use in combination with any other material or in any process. The information, data, and recommendations set forth herein are believed by us to be accurate. We make no warranties, either expressed or implied, with respect thereto and assume no liability in connection with any use of such information, data, and recommendations.