

MATERIAL SAFETY DATA SHEET

Chloroform (Ethanol Stabilized)

SECTION 1 . Product and Company Identification

Product Name and Synonym: Chloroform (Ethanol Stabilized)
Product Code: C3605
Material Uses:
Manufacturer: Science Stuff
1104 Newport Ave
Austin, TX 78753
(512) 837-6020
Entry Date : 5/30/2013
Print Date: 5/30/2013
24 Hour Emergency Assistance : Chemtrec 800-424-9300
Canutec 613-996-6666

Health:	3			
Flammability:	0			
Reactivity:	0			
Hazard Rating:				
Least	Slight	Moderate	High	Extreme
0	1	2	3	4
NA=Not Applicable		NE=Not Established		

SECTION 2 HAZARD IDENTIFICATION

May be fatal if inhaled, swallowed or absorbed thru the skin Avoid all contact. Use with adequate ventilation. Wash thoroughly after use. Keep container closed.

Physical state: Liquid. [Colorless]
OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview:

WARNING!
HARMFUL IF INHALED OR SWALLOWED.
CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
SUSPECT CANCER HAZARD
MAY CAUSE CANCER
MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS:
KIDNEYS, LIVER, HEART, SKIN, EYES, LENS, CENTRAL NERVOUS SYSTEM

WARNING: this product contains a chemical known to the State of California to cause cancer. birth defects or other reproductive harm.

Do not ingest.
Do not breathe vapor or mist.
Avoid contact with eyes, skin or clothing.
Keep container tightly closed and sealed until ready for use. Use only with adequate ventilation. Wash thoroughly after handling.

Routes of entry:
Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects:

Eyes: Irritating to eyes.
Skin: Irritating to skin
Inhalation: Toxic by inhalation. Irritating to respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion: Toxic if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.

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Teratogenicity/ Reproductive toxicity: No known significant effects or critical hazards.
Developmental effects: No known significant effects or critical hazards.
Fertility effects: No known significant effects or critical hazards.

Target organs: May cause damage to the following organs: kidneys, liver, heart, skin, eyes, central nervous system (CNS).

Medical conditions aggravated by over-exposure:

Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product

SECTION 3 MIXTURE COMPONENTS

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input checked="" type="checkbox"/>	Chloroform (Ethanol Stabilized)	CAS# 67-66-3	100%	V/V	OSHA TWA 75 ppm (350 AMG/Mf)

SECTION 4 FIRST AID MEASURES

May be fatal if inhaled, swallowed or absorbed thru the skin Avoid all contact. Use with adequate ventilation. Wash thoroughly after use. Keep container closed.

FIRST AID: CALL A PHYSICIAN. SKIN: In case of contact, immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Thoroughly clean clothing and shoes before reuse.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: If swallowed, induce vomiting immediately after giving two glasses of water. Never give anything by mouth to an unconscious person.

SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type:	Any means suitable for extinguishing surrounding fire
Fire / Explosion Hazards:	None Known.
Fire Fighting Procedure:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Absorb spill with inert material, then place in a chemical waste container. Dispose of in a manner consistent with federal, local law.

Personal precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personal from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Spill: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section

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13). Use spark-Proof tools and explosion- proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal. Dilute with water and mop up if water- soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

SECTION 7 HANDLING AND STORAGE

Store in a cool, dry, well-ventilated place away from incompatible materials. Wash thoroughly after handling.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: NIOSH/MSHA-approved respirator
Ventilation
Local Exhaust
Mechanical
Protective Gloves: Wear appropriate gloves to prevent skin exposure
Eye Protection: Splash Goggles
Other Protective Equipment: Wear appropriate clothing to prevent skin exposure

Chloroform

ACGIH (United States, 1996).
TWA: 49 mg/m³
OSHA (United States, 1989).
TWA: 9.78 mg/m³
ACGIH TLV (United States, 1/2008)
TWA: 10 ppm 8 hour(s)
TWA: 49 mg/m³ 8 hour(s)
NIOSH REL (United States, 6/2008)
STEL: 2 ppm 60 minute(s)
STEL: 9.78 mg/m³ 60 minute(s)
OSHA PEL (United States, 8/1997).
CEIL: 240 mg/m³ Form: All forms
CEIL: 50 ppm Form: All forms
OSHA PEL 1989 (United States, 3/1989).
TWA: 9.78 mg/m³ 8 hour(s)
TWA: 2 ppm 8 hour(s)

Consult local authorities for acceptable exposure limits.
Engineering measures: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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Personal Protection

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Recommended: splash goggles

Skin: Personal protective equipment for the body should be selected based on the task being performed and risks involved and should be approved by a specialist before handling this product.

Body recommended: lab coat

Respiratory: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Recommended:

Viton

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Melting Point:	-82 Deg. F	Percent Volatile by Volume:	100%
Boiling Point:	143 Deg. F	Evaporation Rate	11.6
Vapor Pressure:	160 mm Hg	Evaporation Standard	Butylacetate =1
Vapor Density:	4.12	Auto Ignition Temp	Not applicable
Solubility in Water:	Insoluble	Lower Flamm. Limit in Air	Not applicable
Appearance /Odors:	Color liquid, sweet odor	Upper Flamm. Limit in Air	Not applicable
Flash Point:	N/A		
Specific Gravity:	1.5		

SECTION 10 STABILITY AND REACTIVITY INFORMATION

Stability:	Stable
Conditions to Avoid:	Avoid contact with incompatible materials. High temperatures and light.
Materials to Avoid:	Acids, bases, metals and oxidizers
Hazardous Decomposition Products:	Hydrogen Chloride, carbon dioxide, phosgene gas
Hazardous polymerization:	Will Not Occur
Conditions to Avoid:	None known

SECTION 11 Toxicological Information

Chloroform (Ethanol Stabilized)

Chloroform
LD50 695 mg/kg Oral Rat
LD50 1250 mg/kg Oral Rat
LD50 36 mg/kg Oral Mouse
LDLo 500 mg/kg Oral Rabbit
LDLo 2514 mg/kg Oral Man
LD50 47702 mg/m³Inhalation Rat
(4 hours)

Carcinogenic effects: May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenic effects: No known significant effects or critical hazards

Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards

SECTION 12 Ecological Information

Chloroform
Scenedesmus subspicatus (EC50) 48 hour(s) 560mg/l
Scenedesmus subspicatus (EC50) 48 hour(s) 950 mg/l
Lepomis macrochirus (LC50) 96 hour(s) 13.3 mg/l
Oncorhynchus mykiss (LC50) 96 hour(s) 15.1 mg/l
Lepomis macrochirus (LC50) 96 hour(s) 16.2 mg/l
Oncorhynchus mykiss (LC50) 96 hour(s) 17.1 mg/l

Environmental effects : No known significant effects or critical hazards.

Other adverse effects : No known significant effects or critical hazards.

SECTION 13 Disposal Considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14 Transport Information

DOT Classification: Chloroform, 6.1, UN1888, PG III

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

SECTION 15 Regulatory Information

United States

HCS Classification:

Toxic material
Target organ effects
Carcinogen
Irritating material

U.S. Federal regulations:

United States inventory (TSCA 8b): listed
TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.
SARA 302/304/311/312 extremely hazardous substances: Chloroform
SARA 302/304 emergency planning and notifications: Chloroform
SARA 302/304/311/312 hazardous chemicals: Chloroform
SARA 311/312 MSDS distribution- Chemical inventory- hazard identification: Chloroform
Immediate (acute) health hazard, Delayed (chronic) health hazard
Clean Water Act (CWA) 307: Chloroform
Clean Water Act (CWA) 311: Chloroform
Clean Air Act (CAA) 112 accidental release prevention: Chloroform
Clean Air Act (CAA) 112 regulated flammable substance: No products were found.
Clean Air Act (CAA) 112 regulated toxic substance: Chloroform

DEA List I Chemicals : not listed
(Precursor Chemicals)
DEA List II Chemicals : not listed
(essential Chemicals)

SARA 313

Chloroform (Ethanol Stabilized)

Form R – Reporting Requirements: Chloroform
CAS number : 67-66-3 Concentration : 100

Supplier notification : Chloroform
CAS number : 67-66-3 Concentration : 100

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

Massachusetts Substance : This material is listed.
New Jersey Hazardous Substances : This material is listed.
New York Acutely Hazardous Substances : This material is listed.
Pennsylvania RTK Hazardous Substances : This material is listed.

Ingredient name: Chloroform
Cancer: Yes Reproductive: No No significant risk level: 20 ug/day (ingestion) 40 ug/day (inhalation) Maximum acceptable dosage level: no

Canada
WHMIS (Canada) :
Class D-1B: Material causing immediate and serious toxic effects (Toxic)
Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).
Canadian lists : CEPA Toxic Substance: This material is not listed.
Canadian ARET: This material is not listed.
Canadian NPRI: This material is listed.
Alberta Designated Substances: This material is not listed.
Ontario Designated Substances: This material is not listed.
Quebec Designated Substances: This material is not listed.

CEPA DSL/ CEPA NDSL : CEPA DSL:
This material is listed or exempted.
This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

SECTION 16 Additional Information

Flammability

Health

Reactivity

Revisions

NFPA

0.1

The information herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty either expressed or implied is made for the completeness or accuracy of the information whether originating from the above mentioned company or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material can be used safely.