



IBI SCIENTIFIC

9861 Kapp Court ■ Peosta, IA 52068

Tele: (563) 690-0484 ■ 1-800-253-4942

Fax: (563) 690-0490 ■ **E-Mail:** info@ibisci.com

Web: www.ibisci.com

Issuing Date: 08-Jan-1998

Revision Date: 05-Oct-2011

Rev. 3

1. IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND THE COMPANY/UNDERTAKING

Product Name: Chloroform
Product Code: IB05040
Recommend Use: For further manufacturing use only
 Not for human or animal drug use
Synonyms: FORMYL TRICHLORIDE * METHANE TRICHLORIDE * METHANE
Company: IBI SCIENTIFIC
 9861 Kapp Court
 Peosta, IA 52068
Emergency Tele. Number: 3E Company (Acct# 9027) 1-800-451-8346 / (001) 760-602-8703
Company Tele. Number: 1-800-253-4942 / (001) 563-690-0484
E-Mail Address: info@ibisci.com

2. HAZARDOUS IDENTIFICATION

GHS – Classification

Classification: Acute Toxicity Oral 4 Specific Target Organ Toxicity (repeated) 2 Skin Irritant 2
Signal Word: Warning



Hazard Statements: H302–Harmful if swallowed * H315–Causes skin irritation * H319–Causes serious eye irritation * H351–Suspected of causing cancer * H373–May cause damage to organs through prolonged or repeated exposure

Precautionary Statements: P280–Wear protective gloves/protective clothing/eye protection/face protection * P302+P352–IF ON SKIN: Wash with plenty of soap and water * P304+P340–IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing * P305+P351+P338–IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

MATERIAL SAFETY DATA SHEET

IB05040 - CHLOROFORM

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name:	Chloroform
EC No.:	EEC No. 200-663-8
REACH Reg. No.:	Not Available
CAS No.:	67-66-3
Weight %:	95 – 100
Classification:	Xn; R22-48/20/22, Xi; Rn38, Carc.Cat. 3; R40

4. FIRST AID MEASURES

Eye Contact:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin Contact:	Wash off immediately with soap and plenty of water, removing all contaminated clothes and shoes.
Inhalation:	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Ingestion:	Clean mouth with water and afterwards drink plenty of water. Never give anything by mouth to an unconscious person.
Notes to Physician:	Treat symptomatically.

5. FIRE FIGHTING MEASURES

Flammable Properties:	Not flammable
Flash Point:	Not determined
Suitable Extinguishing Media:	Dry chemical, CO ₂ , water spray, or regular foam
Hazardous Combustion Products:	Hydrogen Chloride gas, Phosgene gas, Carbon oxides
Explosion Data	
Sensitivity to Mechanical Impact:	Not sensitive
Sensitivity to Static Discharge:	Not sensitive
Protective Equip. & Precautions for Firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equiv.) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Avoid contact with skin, eyes, and clothing. Use personal protective equipment. Ensure adequate ventilation.
Methods for Containment:	Prevent further leakage or spillage, if safe to do so.
Methods for Cleaning Up:	Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Handling:	Handle in accordance with good industrial hygiene and safety practice. Protect from light.
Storage:	Keep container tightly closed in a dry and well ventilated place. Protect from light.
Incompatible Products:	Bases, Aluminum.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name:	Chloroform - #67-66-3
ACGIH TLV:	TWA: 10ppm
OSHA PEL:	(vacated) TWA: 2ppm * (vacated) TWA: 9.78mg/m ³ * Ceiling: 240mg/m ³ * Ceiling: 50ppm
NIOSH IDLH:	IDLH: 500ppm * STEL: 2ppm * STEL: 9.78mg/m ³
Engineering Measures:	Showers, Eyewash Stations, Ventilation Systems

MATERIAL SAFETY DATA SHEET

IB05040 - CHLOROFORM

Personal Protective Equipment

Eye/Face Protection:	Safety glasses with side-shields.
Skin & Body Protection:	Wear protective gloves/clothing.
Respiratory Protection:	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless liquid
Odor:	No information available
Odor Threshold:	No information available
Decomposition Temp. °C:	No information available
Freezing Point:	No information available
Initial Boiling Point:	No information available
Physical State:	Liquid
pH:	No data available
Flash Point:	Not determined
Autoignition Temp. °C:	No data available
Boiling Point/Range:	59.4 - 61.5°C
Melting Point/Range:	-63°C
Flammability Limits (Air):	<u>Upper</u> -No data available * <u>Lower</u> -No data available
Explosive Properties:	No information available
Oxidizing Properties:	No information available
Evaporation Rate:	5.79
MMHG @ 37.8°C:	No data available
Vapor Density:	No data available
Specific Gravity:	1.48
Density:	4.1
Solubility:	Soluble
Water Solubility:	Very soluble in water
Partition Coefficient (n-octanol/water):	No data available
Viscosity:	No information available

10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage conditions
Incompatible Products:	Bases, Aluminum
Conditions to Avoid:	Protect from light and moisture
Hazardous Decomposition Products:	Hydrogen chloride, Phosgene gas, Carbon oxides
Hazardous Polymerization:	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information:	Toxic by inhalation, in contact with skin, or if swallowed. Irritating to eye, skin, and respiratory system.
Chemical Name:	Chloroform - #67-66-3
LD50 Oral:	695mg/kg (Rat)
LD50 Dermal:	3980mg/kg (Rabbit)
LC50 Inhalation:	47702mg/kg (Rat) 4h

MATERIAL SAFETY DATA SHEET

IB05040 - CHLOROFORM

Chronic Toxicity

Chronic Toxicity:	Suspected carcinogen
Chemical Name:	Chloroform - #67-66-3
ACGIH:	A3
IARC:	Group 2B
NTP:	Reasonably anticipated
OSHA:	X
Target Organ Effects:	Nerves, Liver, Heart

12. ECOLOGICAL INFORMATION

Ecotoxicity:	Harmful to aquatic organisms
Chemical Name:	Chloroform - #67-66-3
Toxicity to Algae:	EC50 = 560mg/L (48h)
Toxicity to Fish:	LC50 = 18mg/L <i>Lepomis macrochirus</i> (96h) LC50 = 18mg/L <i>Oncorhynchus mykiss</i> (96h) LC50 = 300mg/L <i>Poecilia reticulata</i> (96h) LC50 = 70.7mg/L <i>Pimephales promelas</i> (96h)
Microtox	EC50 = 520mg/L (5min) EC50 = 670mg/L (15min) EC50 = 670mg/L (30min)
Daphnia Magna (Water Flea):	EC50 = 28.9mg/L (48h)
Log Pow	2 @ 25°C

13. DISPOSAL CONSIDERATIONS

Water Disposal Method:	Dispose of material in accordance with all federal, state, and local regulations.
Contaminated Packaging:	Dispose of in accordance with all federal, state, and local regulations.

14. TRANSPORT INFORMATION

IATA

UN#	UN1888
Proper Shipping Name	CHLOROFORM
Hazardous Class	6.1
Packing Group	III

US DOT

UN#	UN1888
Proper Shipping Name	CHLOROFORM
Hazardous Class	6.1
Packing Group	III

15. TOXICOLOGICAL INFORMATION

REACH Title VII Restrictions	No information available
Chemical Name:	Chloroform – #67-66-3
Dangerous Substances:	>=>=0.1% by weight
Organic Solvents:	Class 1
Harmful Substances Whose Names are to be indicated on the Label:	X
Pollution Release and Transfer Registry (Class II):	Not applicable
Pollution Release and Transfer Registry (Class I):	95
Poison and Deleterious Substances Control Law:	Deleterious.?
ISHA – Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying:	Not applicable
ISHA – Harmful Substances Requiring Permission:	Not applicable

MATERIAL SAFETY DATA SHEET

IB05040 - CHLOROFORM

Toxic Chemical Classification Listing (TCCL):
Toxic Release Inventory (TRI) – Group I:
Toxic Release Inventory (TRI) – Group II:

97-1-281, 85% or more in mixtures
Not applicable
≥0.1%

No information available

International Inventories

TSCA:	Complies
DSL:	Complies
EINECS/ELINCS:	Complies
ENCS:	Complies
IECSC:	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical/chemicals which are subject to the reporting requirements of the Act & Title 40 of the Code of Federal Regulations, part 372.

Chemical Name:	Chloroform - #67-66-3
Weight (%):	95 – 100
SARA 313 – Threshold (%):	0.1

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical Name:	Chloroform - #67-66-3
CWA-Reportable Quantities:	10lb
CWA-Toxic Pollutants:	X
CWA-Priority Pollutants:	X
CWA-Hazardous Substances:	X

Clean Air Act

Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61). This product contains the following substances which are listed hazardous air pollutants (HAPs) under Section 112 of the Clean Air Act.

Chemical Name:	Chloroform - #67-66-3
Weight (%):	95 - 100
HAPs Data:	Present
VOC Chemicals:	Group I
Class 1 Ozone Depletors:	-
Class 2 Ozone Depletors:	-

CERCLA

Chemical Name:	Chloroform - #67-66-3
Hazardous Substance RQs:	10lbs
Extremely Hazardous Substance RQs:	10lbs

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name:	Chloroform - #67-66-3
California Prop. 65:	Carcinogen

MATERIAL SAFETY DATA SHEET

IB05040 - CHLOROFORM

State

Massachusetts	X
New Jersey	X
Pennsylvania	X
Illinois	X
Rhode Island	X

International Regulations

Mexico

Chemical Name:	Chloroform - #67-66-3
Carcinogen Status:	A3
Exposure Limits:	Mexico: TWA = 50mg/m ³
	Mexico: TWA = 10ppm
	Mexico: STEL = 225mg/m ³
	Mexico: STEL = 50ppm

Canada

WHMIS Hazard Class

D1B – Toxic materials

D2A – Very toxic materials



Chemical Name:	Chloroform - #67-66-3
NPRI:	X

16. OTHER INFORMATION

Issuing Date: 08-Jan-1998

Revision Date: 05-Oct-2011

Revision Note: Update to GHS Standard

Recommended Restrictions: No information available

Disclaimer: The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal, and release; and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the test.

End of MSDS