

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 11.27.2017

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Chloroform

SECTION 1: Identification

Product identifier

Product name: Chloroform

Product code: S25248

Recommended use of the product and restriction on use

Relevant identified uses: Not determined or not applicable.

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:

Supplier:

AquaPhoenix Scientific

860 Gitts Run Road

Hanover

PA 17331

(717) 632-1291

Fisher Science Education

6771 Silver Crest Road

Nazareth

PA 18064

800 955-1177

Emergency telephone number:

United States

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazard(s) identification

GHS classification:

Acute toxicity (oral), category 4

Acute toxicity (inhalation), category 4

Skin irritation, category 2

Eye irritation, category 2A

Carcinogenicity, category 2

Reproductive toxicity, category 2

Specific target organ toxicity - repeated exposure, category 1

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements:

H302 Harmful if swallowed

H332 Harmful if inhaled

H315 Causes skin irritation

H319 Causes serious eye irritation

H351 Suspected of causing cancer

H361 Suspected of damaging fertility or the unborn child

H372 Causes damage to organs through prolonged or repeated exposure

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Precautionary statements:

- P264 Wash skin thoroughly after handling
- P270 Do not eat, drink or smoke when using this product
- P271 Use only outdoors or in a well-ventilated area
- P280 Wear protective gloves/protective clothing/eye protection/face protection
- P201 Obtain special instructions before use
- P202 Do not handle until all safety precautions have been read and understood
- P260 Do not breathe dust/fume/gas/mist/vapors/spray
- P301+P330+P312 IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.
- P304+P340+P312 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell
- P321 Specific treatment (see supplemental first aid instructions on this label).
- P362 Take off contaminated clothing and wash before reuse
- P302+P352 If on skin: Wash with soap and water
- P332+P313 If skin irritation occurs: Get medical advice/attention
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
- P308+P313 If exposed or concerned: Get medical advice/attention
- P405 Store locked up
- P501 Dispose of contents and container as instructed in Section 13

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 67-66-3	Chloroform	100

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

Not determined or not applicable.

After inhalation:

- Loosen clothing as necessary and position individual in a comfortable position
- Maintain an unobstructed airway
- Get medical advice/attention if you feel unwell
- Move to fresh air
- Call a POISON CONTROL CENTER or seek medical attention if you feel unwell

After skin contact:

- Rinse affected area with soap and water
- If symptoms develop or persist, seek medical attention
- Wash affected area with soap and water
- Seek medical attention if symptoms develop or persist

After eye contact:

- Rinse/flush exposed eye(s) gently using water for 15-20 minutes
- Remove contact lenses, if present and easy to do
- Continue rinsing

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Get medical advice/attention
Remove contact lens(es) if able to do so during rinsing
Seek medical attention if irritation persists or if concerned

After swallowing:

Rinse mouth and then drink plenty of water
Do not induce vomiting
Get medical advice/attention if you feel unwell
Call a POISON CONTROL CENTER or seek medical attention if you feel unwell

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

Not determined or not applicable.

Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:

Not determined or not applicable.

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:

Not determined or not applicable.

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

Special protective equipment for firefighters:

Wear protective eye wear, gloves and clothing

Refer to Section 8

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

Special precautions:

Heating causes a rise in pressure, risk of bursting and combustion

Shut off sources of ignition

Carbon monoxide and carbon dioxide may form upon combustion

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation

Ensure air handling systems are operational

Wear protective eye wear, gloves and clothing

Environmental precautions:

Should not be released into the environment

Prevent from reaching drains, sewer or waterway

Methods and material for containment and cleaning up:

Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders)

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Dispose of contents / container in accordance with local regulations

Reference to other sections:

Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:

Do not eat, drink, smoke or use personal products when handling chemical substances.

Avoid breathing mist or vapor.

Use only with adequate ventilation.

Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.

Store away from foodstuffs.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
United States (OSHA)	Chloroform	67-66-3	OSHA PEL Ceiling 240 mg/m ³ (50 ppm)
ACGIH	Chloroform	67-66-3	ACGIH TLV TWA 10 ppm
NIOSH	Chloroform	67-66-3	NIOSH REL Ca ST 9.78 mg/m ³ (2 ppm) [60 min]

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Personal protection equipment

Eye and face protection:

Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:

Select glove material impermeable and resistant to the substance.

Respiratory protection:

When necessary, use NIOSH-approved breathing equipment.

General hygienic measures:

Wash hands before breaks and at the end of work.

Avoid contact with skin, eyes and clothing.

Perform routine housekeeping.

Wash contaminated clothing before reusing.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

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Appearance	Clear liquid
Odor	Aromatic chloroform odor
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	-63°C (-81.4°F)
Initial boiling point/range	60.5 - 61.5°C (140.9 - 142.7°F)
Flash point (closed cup)	Not determined or not available.
Evaporation rate	11.6 (Butyl Acetate = 1.0)
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	213 mBar at 20 °C
Vapor density	4.12 (Air = 1.0)
Density	Not determined or not available.
Relative density	1.480
Solubilities	Slightly soluble in water.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	290°C
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:

Does not react under normal conditions of use and storage.

Chemical stability:

Stable under normal conditions of use and storage.

Possibility of hazardous reactions:

None under normal conditions of use and storage.

Conditions to avoid:

Incompatible materials. Excess heat.

Incompatible materials:

Alkali metals, strong caustics and oxidizers.

Hazardous decomposition products:

Oxides of sodium. Emits very toxic fumes of chlorine and phosgene gas.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Harmful if swallowed Harmful if inhaled

Product data: No data available.

Substance data:

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Name	Route	Result
Chloroform	oral	LD50 - Rat - 695 mg/kg

Skin corrosion/irritation

Assessment: Causes skin irritation

Product data: No data available.

Substance data:

Name	Result
Chloroform	Irritating to the skin.

Serious eye damage/irritation

Assessment: Causes serious eye irritation

Product data: No data available.

Substance data:

Name	Result
Chloroform	Irritating effect on the eyes.

Respiratory or skin sensitization

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Carcinogenicity

Assessment: Suspected of causing cancer

Product data: No data available.

Substance data:

Name	Species	Result
Chloroform		May cause cancer.

International Agency for Research on Cancer (IARC):

Name	Classification
Chloroform	Group 2B - Possibly carcinogenic to humans

National Toxicology Program (NTP):

Name	Classification
Chloroform	Reasonably anticipated to be human carcinogens

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Reproductive toxicity

Assessment: Suspected of damaging fertility or the unborn child

Product data: No data available.

Substance data:

Name	Result
Chloroform	Suspected of damaging fertility or the unborn child.

Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met.

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Product data: No data available.

Substance data:

Name	Result
Chloroform	Suspected of affecting the kidneys/liver through prolonged or repeated exposure.

Specific target organ toxicity (repeated exposure)

Assessment: Causes damage to organs through prolonged or repeated exposure

Product data: No data available.

Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Information on likely routes of exposure: No data available.

Symptoms related to the physical, chemical and toxicological characteristics: No data available.

Other information: No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Chronic (long-term) toxicity

Product data: No data available.

Substance data: No data available.

Persistence and degradability

Product data: No data available.

Substance data: No data available.

Bioaccumulative potential

Product data: No data available.

Substance data: No data available.

Mobility in soil

Product data:

log Pow: 2

Substance data: No data available.

Other adverse effects:

Chloroform has moderate acute and chronic toxicity to aquatic life, especially brittle roots and chromosomal damage.

SECTION 13: Disposal considerations

Disposal methods:

Contact a licensed professional waste disposal service to dispose of this material. U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics waste number U044 (Chloroform). U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII Included in waste streams: F024, F025, F039, K009, K010, K019, K020, K021, K029, K073, K116, K149, K150, K151, K158 (Chloroform). U.S. - RCRA (Resource Conservation & Recovery Act) - D Series Wastes - Max Conc of Contaminants for the Tox Characteristic 6.0 mg/L regulatory level (Chloroform).

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Dispose of empty containers as unused product. Product or containers must not be disposed with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification

SECTION 14: Transport information


United States Transportation of dangerous goods (49 CFR DOT)

UN number	UN1888
UN proper shipping name	Poisonous material, Chloroform.
UN transport hazard class(es)	6 
Packing group	III
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	UN1888
UN proper shipping name	Poisonous material, Chloroform.
UN transport hazard class(es)	6 
Packing group	III
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	UN1888
UN proper shipping name	Poisonous material, Chloroform.
UN transport hazard class(es)	6 
Packing group	III
Environmental hazards	None
Special precautions for user	None

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

67-66-3	Chloroform	Listed
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Significant New Use Rule (TSCA Section 5): Not determined.

Export notification under TSCA Section 12(b): Not determined.

SARA Section 311/312 hazards:

Acute	Chronic	Fire	Pressure	Reactive
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No	No	No	No	No
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SARA Section 302 extremely hazardous substances:

67-66-3	Chloroform	Listed
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SARA Section 313 toxic chemicals:

67-66-3	Chloroform	Listed
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CERCLA:

67-66-3	Chloroform	Listed	10 lbs.
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RCRA:

67-66-3	Chloroform	Listed	U044
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Section 112(r) of the Clean Air Act (CAA): TQ = 20,000

Massachusetts Right to Know:

67-66-3	Chloroform	Listed
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New Jersey Right to Know:

67-66-3	Chloroform	Listed
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New York Right to Know:

67-66-3	Chloroform	Listed
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Pennsylvania Right to Know:

67-66-3	Chloroform	Listed
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California Proposition 65:

WARNING: This product contains a chemical known to the State of California to cause cancer.

67-66-3	Chloroform
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WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

67-66-3	Chloroform
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SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

NFPA: 2-0-0

HMIS: 2-0-0-X

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End of Safety Data Sheet