

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Initial preparation date: : 07.26.2016**Carnoy's Solution****SECTION 1: Identification of the substance/mixture and of the supplier****Product name:** Carnoy's Solution**Manufacturer/Supplier Article number:** S25237**Recommended uses of the product and restrictions on use:** Produits chimiques de laboratoire**Manufacturer Details:**

AquaPhoenix Scientific
860 Gitts Run Road,
Hanover, PA 17331
(717) 632-1291

Supplier Details:

Fisher Science Education
6771 Silver Crest Road, Nazareth, PA 18064
800 955-1177

Emergency telephone number:

Emergency Telephone No.: 800-255-3924

SECTION 2: Hazards identification**Classification of the substance or mixture:****Flammable**

Flammable liquids, category 3

**Corrosive**Serious eye damage, category 1
Skin corrosion, category 1A**Irritant**Acute toxicity (oral), category 4
Acute toxicity (inhalation), category 4**Health hazard**Specific target organ toxicity - repeated exposure, category 2
Carcinogenicity, category 2
Reproductive toxicity, category 2**Signal word:** Danger**Hazard statements:**

Flammable liquid and vapor.
Causes serious eye damage.
Causes severe skin burns and eye damage.
Harmful if swallowed.
Harmful if inhaled.
May cause damage to organs through prolonged or repeated exposure.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.

Precautionary statements:

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Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 Do not eat, drink or smoke when using this product.
 Keep container tightly closed.
 Ground/bond container and receiving equipment.
 Use explosion-proof electrical/ventilating/light/equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Do not breathe dust/fume/gas/mist/vapors/spray.
 Wash skin thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 In case of fire: Use agents recommended in section 5 for extinction.
 Specific treatment (see supplemental first aid instructions on this label).
 Wash contaminated clothing before reuse.
 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
 If exposed or concerned: Get medical advice/attention.
 Store in a well ventilated place. Keep cool.
 Store locked up.
 Dispose of contents and container as instructed in Section 13.

Other Non-GHS Classification: None**SECTION 3: Composition/information on ingredients****Ingredients:**

CAS / EINECS #	Ingredient Name	Wt. %
64-17-5	Ethanol	59
64-19-7	Acetic Acid	10
67-66-3	Chloroform	30

SECTION 4: First aid measures**Description of first aid measures****After inhalation:**

Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Maintain an unobstructed airway. Immediately call a POISON CONTROL CENTER or seek medical attention.

After skin contact:

Immediately remove all contaminated clothing. Wash affected area with soap and water. Immediately call a POISON CONTROL CENTER or seek medical attention.

After eye contact:

Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lens(es) if able to do so during rinsing. Immediately call a POISON CONTROL CENTER or seek medical attention.

After swallowing:

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Immediately call a POISON CONTROL CENTER or seek medical attention. Do not induce vomiting. Rinse mouth and then drink plenty of water.

Most important symptoms and effects, both acute and delayed: None**Indication of any immediate medical attention and special treatment needed:** None**SECTION 5: Firefighting measures****Extinguishing media****Suitable extinguishing agents:**

Use Water (fog only), dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

Unsuitable extinguishing agents: None**Special hazards arising from the substance or mixture:**

Thermal decomposition can lead to release of irritating gases and vapors. Vapors can flow to distant ignition sources and flashback. Liquid is volatile and may generate an explosive atmosphere.

Advice for firefighters:**Protective equipment:**

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

Additional information (precautions):

Shut off sources of ignition. Carbon monoxide and carbon dioxide may form upon combustion. Heating causes a rise in pressure, risk of bursting and 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. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions:

Should not be released into the environment. Prevent from reaching drains, sewer or waterway.

Methods and material for containment and cleaning up:

Wear protective eye wear, gloves and clothing. Use spark-proof tools and explosion-proof equipment. Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders). Dispose of contents / container in accordance with local regulations.

Reference to other sections: None**SECTION 7: Handling and storage****Precautions for safe handling:**

Use only with adequate ventilation. Avoid breathing mist or vapor. Do not eat, drink, smoke or use personal products when handling chemical substances. Take precautionary measures against electrostatic discharges. Use only non-sparking tools.

Conditions for safe storage, including any incompatibilities:

Keep container tightly sealed. Protect from freezing and physical damage. Store in a cool, well-ventilated area. Store away from all ignition sources (open flames, hot surfaces, direct sunlight, spark sources).

SECTION 8: Exposure controls/personal protection

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Control parameters:	64-17-5, Ethanol, OSHA PEL (TWA): 1,000.0 ppm. 64-17-5, Ethanol, OSHA PEL (STEL): 1,000.0 ppm. 64-17-5, Ethanol, ACGIH TWA: 1,000.0 ppm. 64-19-7, Acetic Acid, ACGIH TLV: 25 mg/m ³ . 64-19-7, Acetic Acid, OSHA PEL: 25 mg/m ³ . 67-66-3, Chloroform, OSHA PEL Ceiling 240 mg/m ³ (50 ppm). 67-66-3, Chloroform, ACGIH TLV TWA: 10 ppm. 67-66-3, Chloroform, NIOSH REL Ca ST 9.78 mg/m ³ (2 ppm) [60 min].
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. Use explosion-proof ventilation equipment.
Respiratory protection:	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.
Protection of skin:	Select glove material impermeable and resistant to the substance. Wear appropriate clothing to prevent any possibility of skin contact.
Eye protection:	Safety goggles or glasses, or appropriate eye protection.
General hygienic measures:	Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of work. Wash contaminated clothing before reuse.

SECTION 9: Physical and chemical properties

Appearance (physical state, color):	Colorless liquid	Explosion limit lower: Explosion limit upper:	Not determined or not available. Not determined or not available.
Odor:	Acetic Odor	Vapor pressure at 20°C:	Not determined or not available.
Odor threshold:	Not determined or not available.	Vapor density:	4.12
pH-value:	Acidic	Relative density:	1.0
Melting/Freezing point:	-65°C	Solubilities:	Infinite solubility.
Boiling point/Boiling range:	118°C	Partition coefficient (n-octanol/water):	Not determined or not available.
Flash point (closed cup):	24°C	Auto/Self-ignition temperature:	Not determined or not available.
Evaporation rate:	Not determined or not available.	Decomposition temperature:	Not determined or not available.
Flammability (solid, gaseous):	Flammable	Viscosity:	a. Kinematic: Not determined or not available. b. Dynamic: Not determined or not available.
Density at 20°C:	Not determined or not available.		

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.

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None under normal conditions of use and storage.

Conditions to avoid:

None known.

Incompatible materials:

None known.

Hazardous decomposition products:

None known.

SECTION 11: Toxicological information**Acute Toxicity:****Oral:**

LD50 - Rat - 695 mg/kg.

Chronic Toxicity: No additional information.**Skin corrosion/irritation:**

Irritating to the skin.

Serious eye damage/irritation:

Irritating effect on the eyes.

Respiratory or skin sensitization: No additional information.**Carcinogenicity:** No additional information.**Germ cell mutagenicity:** No additional information.**Reproductive Toxicity:**

Chloroform: Suspected of damaging fertility or the unborn child.

STOT-single and repeated exposure:

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

Additional toxicological information:

No additional information.

SECTION 12: Ecological information**Ecotoxicity:**

Ethanol: Fish, Pimephales promelas (fathead minnow) - 14,200 mg/l - 96 h.

Ethanol: Aquatic invertebrates, Ceriodaphnia dubia (water flea) - 5,012 mg/l - 48 h.

Ethanol: Aquatic Plants, Chlorella vulgaris (Fresh water algae) - 275 mg/l - 72 h.

Persistence and degradability: No additional information.**Bioaccumulative potential:** No additional information.**Mobility in soil:** No additional information.**Other adverse effects:** No additional information.**SECTION 13: Disposal considerations**

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It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities.

SECTION 14: Transport information**US DOT****UN Number:**

ADR, ADN, DOT, IMDG, IATA 1992

Limited Quantity Exception: None**Bulk:****RQ (if applicable):** None**Proper shipping Name:** Flammable Liquids, Toxic, N.O.S. (Ethanol, Chloroform).**Hazard Class:** 3, 6**Packing Group:** III.**Marine Pollutant (if applicable):** No**Comments:** None**Non Bulk:****RQ (if applicable):** None**Proper shipping Name:** Flammable Liquids, Toxic, N.O.S. (Ethanol, Chloroform).**Hazard Class:** 3, 6**Packing Group:** III.**Marine Pollutant (if applicable):** No**Comments:** None**SECTION 15: Regulatory information****United States (USA)****SARA Section 311/312 (Specific toxic chemical listings):**

Acute, Chronic, Fire

SARA Section 313 (Specific toxic chemical listings):**RCRA (hazardous waste code):****TSCA (Toxic Substances Control Act) :****CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):****Proposition 65 (California):****Chemicals known to cause cancer:****Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

Canada

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This product has been classified in accordance within GHS guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered 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 materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 2-3-0**HMIS:** 2-3-0**GHS Full Text Phrases:** None**Abbreviations and Acronyms:** None