

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 01.30.2015

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Formaldehyde 10% w/v

SECTION 1 : Identification of the substance/mixture and of the supplier

Product name : Formaldehyde 10% w/v

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25689

Recommended uses of the product and uses restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific
9 Barnhart Drive, Hanover, PA 17331

Supplier Details:

Fisher Science Education
15 Jet View Drive, Rochester, NY 14624

Emergency telephone number:

Fisher Science Education Emergency Telephone No.: 800-535-5053

SECTION 2 : Hazards identification

Classification of the substance or mixture:



Toxic

Acute toxicity (oral, dermal, inhalation), category 3



Corrosive

Skin corrosion, category 1B
Serious eye damage, category 1



Irritant

Skin sensitization, category 1



Health hazard

Carcinogenicity, category 2
Specific target organ toxicity following single exposure, category 1

AcTox Inhaln. 3

Skin Corr. 1B

Eye Damage. 1

Skin Sens. 1

Carc. 2

Stot SE. 1

Signal word : Danger

Hazard statements:

Causes severe skin burns and eye damage

May cause an allergic skin reaction

Toxic if inhaled

Suspected of causing genetic defects

Suspected of causing cancer

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Causes damage to organs

Precautionary statements:

If medical advice is needed, have product container or label at hand

Keep out of reach of children

Read label before use

Wear protective gloves/protective clothing/eye protection/face protection

Do not eat, drink or smoke when using this product

Do not breathe dust/fume/gas/mist/vapours/spray

Wash skin thoroughly after handling

Use only outdoors or in a well-ventilated area

Contaminated work clothing should not be allowed out of the workplace

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

IF SWALLOWED: 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

Remove/Take off immediately all contaminated clothing

Wash contaminated clothing before reuse

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.

Continue rinsing

Specific measures (see supplemental first aid instructions on this label)

If skin irritation or a rash occurs: Get medical advice/attention

Store locked up

Store in a well ventilated place. Keep container tightly closed

Store in a well ventilated place. Keep cool

Dispose of contents and container to an approved waste disposal plant

Other Non-GHS Classification:

WHMIS



NFPA/HMIS

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NFPA SCALE (0-4)

| | |
|---------------------|---|
| Health | 2 |
| Flammability | 0 |
| Physical Hazard | 0 |
| Personal Protection | X |

HMIS RATINGS (0-4)

SECTION 3 : Composition/information on ingredients

Ingredients:

| | | |
|---------------------------|-----------------|------|
| CAS 50-00-0 | Formaldehyde | 10 % |
| CAS 7732-18-5 | Deionized Water | 90 % |
| Percentages are by weight | | |

SECTION 4 : First aid measures

Description of first aid measures

After inhalation: Get medical assistance. Loosen clothing as necessary and position individual in a comfortable position. Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen.

After skin contact: Take off contaminated clothing and shoes immediately. Take victim immediately to hospital. Wash hands and exposed skin with soap and plenty of water.

After eye contact: Continue rinsing eyes during transport to hospital. Protect unexposed eye. Rinse or flush exposed eye gently using water for 15-20 minutes. Remove contact lenses while rinsing.

After swallowing: Get medical assistance. Rinse mouth thoroughly. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed:

Dizziness. Eye damage. Irritation. Headache. Nausea. Shortness of breath.; Upper Respiratory Tract irritation. Eye irritation. Suspected human carcinogen Sensitizer.

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

SECTION 5 : Firefighting measures

Extinguishing media

Suitable extinguishing agents: Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

For safety reasons unsuitable extinguishing agents: No information available.

Special hazards arising from the substance or mixture:

Thermal decomposition can lead to release of irritating gases and vapors.

Advice for firefighters:

Protective equipment: Wear protective eyewear, gloves, and clothing. Refer to Section 8.

Additional information (precautions): Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.

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SECTION 6 : Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation. Ensure that air-handling systems are operational.

Environmental precautions:

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

Methods and material for containment and cleaning up:

Contain spillage and then collect with an electrically protected vacuum cleaner or by wet-brushing. Wear protective eyewear, gloves, and clothing. Refer to Section 8. Always obey local regulations. Containerize for disposal. Refer to Section 13. If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Keep in suitable closed containers for disposal.

Reference to other sections:

SECTION 7 : Handling and storage

Precautions for safe handling:

Keep product and empty container away from heat and sources of ignition. Avoid contact with skin, eyes, and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Refer to Section 13.

Conditions for safe storage, including any incompatibilities:

Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in a cool location. Keep away from food and beverages. Protect from freezing and physical damage. Provide ventilation for containers. Keep container tightly sealed. Store away from incompatible materials.

SECTION 8 : Exposure controls/personal protection



Control Parameters:

50-00-0, Formaldehyde , C 0.300000 ppm USA. ACGIH
50-00-0, Formaldehyde, TWA 0.016000 ppm USA. NIOSH
50-00-0, Formaldehyde, PEL 0.750000 ppm OSHA

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.

Respiratory protection:

Not required under normal conditions of use. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment.

Protection of skin:

Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.

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Eye protection:

Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses or goggles are appropriate eye protection.

General hygienic measures:

Perform routine housekeeping. Wash hands before breaks and at the end of work. Avoid contact with skin, eyes, and clothing. Before wearing wash contaminated clothing.

SECTION 9 : Physical and chemical properties

| | | | |
|---|------------------------|--|---|
| Appearance (physical state,color): | Clear colorless liquid | Explosion limit lower: Explosion limit upper: | Not determined Not determined |
| Odor: | pungent | Vapor pressure: | Not determined |
| Odor threshold: | Not determined | Vapor density: | Not determined |
| pH-value: | Not determined | Relative density: | Not Determined |
| Melting/Freezing point: | Approx. 0°C | Solubilities: | Infinite |
| Boiling point/Boiling range: | Approx. 100°C | Partition coefficient (n-octanol/water): | Not determined |
| Flash point (closed cup): | Not applicable | Auto/Self-ignition temperature: | Not determined |
| Evaporation rate: | Not determined | Decomposition temperature: | Not determined |
| Flammability (solid,gaseous): | Not determined | Viscosity: | a. Kinematic:Not determined b. Dynamic: Not Determined |
| Density: ~ 1.0-1.2 | | | |

SECTION 10 : Stability and reactivity

Reactivity:Nonreactive under normal conditions.

Chemical stability:Stable under normal conditions.

Possible hazardous reactions:None under normal processing.

Conditions to avoid:Incompatible materials.

Incompatible materials:Oxidizers, acids, phenols, alkalis, urea.

Hazardous decomposition products:Acrid and irritating fumes, including toxic oxides of carbon and formaldehyde.

SECTION 11 : Toxicological information

| | | |
|---|-------------------------|------------------------|
| Acute Toxicity: | | |
| Oral: | 100mg/kg (Formaldehyde) | LD50 orl - rat |
| Inhalation: | 203mg/kg (Formaldehyde) | LC50 inhalation - rat: |
| Chronic Toxicity: No additional information. | | |
| Corrosion Irritation: | | |

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| | | |
|------------------------------------|--|---------|
| Dermal: | Skin - Rabbit Result: Corrosive after 3 minutes to 1 hour of exposure - 20 h | 50-00-0 |
| Ocular: | Eyes - Rabbit Result: Corrosive - 7 d | 50-00-0 |
| Sensitization: | 50-00-0: Maximization Test (GPMT) - Guinea pig Result: Causes sensitization. May cause allergic skin reaction. | |
| Single Target Organ (STOT): | 50-00-0: Liver - Irregularities - Based on Human Evidence (Formaldehyde). 67-56-1: Stomach - Irregularities - Based on Human Evidence (Methanol) | |
| Numerical Measures: | No additional information. | |
| Carcinogenicity: | 50-00-0:: 1 - Group 1: Carcinogenic to humans (Formaldehyde) | |
| Mutagenicity: | 50-00-0: Liver - Irregularities - Based on Human Evidence (Formaldehyde). 67-56-1: Stomach - Irregularities - Based on Human Evidence (Methanol) | |
| Reproductive Toxicity: | No additional information. | |

SECTION 12 : Ecological information

Ecotoxicity Persistence and degradability:

Bioaccumulative potential:

Mobility in soil:

Other adverse effects:

SECTION 13 : Disposal considerations

Waste disposal recommendations:

Contact a licensed professional waste disposal service to dispose of this material. 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. This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber.

SECTION 14 : Transport information

UN-Number

2209

UN proper shipping name

Formaldehyde solutions

Transport hazard class(es)



Class:

8 Corrosive substances

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Packing group:III

Environmental hazard:

Transport in bulk:

Special precautions for user:

SECTION 15 : Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

Acute, Chronic

SARA Section 313 (Specific toxic chemical listings):

None of the ingredients is listed

RCRA (hazardous waste code):

None of the ingredients is listed

TSCA (Toxic Substances Control Act):

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

50-00-0 Formaldehyde 100 lbs

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed

Chemicals known to cause developmental toxicity:

None of the ingredients is listed

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

50-00-0 Formaldehyde

Canadian NPRI Ingredient Disclosure list (limit 1%):

None of the ingredients is listed

SECTION 16 : Other information

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. Note: 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

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material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

GHS Full Text Phrases:

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

PNEC: Predicted No-Effect Concentration (REACH)

CFR: Code of Federal Regulations (USA)

SARA: Superfund Amendments and Reauthorization Act (USA)

RCRA: Resource Conservation and Recovery Act (USA)

TSCA: Toxic Substances Control Act (USA)

NPRI: National Pollutant Release Inventory (Canada)

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

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