Paraformaldehyde solution 4% in PBS: sc-281692

MATERIAL SAFETY DATA SHEET

Hazard information is provided for compliance with both the UK Chemicals (Hazard Information and Packaging) (CHIP) Regulations and the US Hazard Communication Standard (HCS)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name : Paraformaldehyde solution 4% in PBS

Catalog Number : sc-281692

Supplier : Santa Cruz Biotechnology, Inc.
2145 Delaware Avenue
Santa Cruz, California 95060
800.457.3801 or 831.457.3800

Emergency Contact:
ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255
(1-800-CHEMCALL) or call +613 9573 3112

COMPOSITION/ HAZARDOUS COMPONENTS

HAZARD	CAS NO.	%WT	TLV	CHIP R & S Phrases
Paraformaldehyde (formaldehyde as decomposition product)	30525-89-4	~4%	---	R:40 Limited evidence of a carcinogenic effect. R:43 May cause sensitization by skin contact. S:26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S:36/37/39 Wear suitable protective clothing, gloves, and eye/face protection. S:45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S:51 Use only in well ventilated areas.

HAZARDS IDENTIFICATION

CHIP
Harmful
HCS
Suspected Carcinogen; Irritant.

FIRST-AID MEASURES

EYES: Flush with water for 15 minutes. Seek medical advice if irritation persists.
SKIN: Flush with water, then wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. Seek medical advice if irritation persists.
INHALATION: Remove the victim from exposure and move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Keep victim quiet and warm. Seek immediate medical attention.
INGESTION: Drink water and seek immediate medical attention. Avoid alcoholic beverages. Never give anything by mouth to an unconscious person.

FIRE-FIGHTING INFORMATION

Use media suitable to extinguish the supporting or surrounding fire. Wear NIOSH (or equivalent) approved self contained breathing apparatus. For small fires only: use carbon dioxide, dry powder or foam. Emits toxic fumes under fire conditions.
Flash Point = No data available.

ACCIDENTAL RELEASE MEASURES

Wear appropriate personal protective equipment and clothing including lab coat, safety goggles, gloves and NIOSH-approved respirator. Eliminate all sources of ignition. Using non-sparking tools collect in a manner that does not create dust and place in a suitable waste container. Avoid contact of the material with skin or eyes. Use adequate ventilation.

HANDLING AND STORAGE

Wear appropriate personal protective equipment and clothing including lab coat, safety goggles, gloves and NIOSH-approved respirator. Avoid contact of material with skin or eyes. Store at +4°C away from sources of ignition. Keep containers tightly closed when not in use. Incompatible with alkalies, reactive organic substances, brass, steel, copper, copper alloys, bronze, strong oxidizing agents, strong reducing agents, combustible materials, caustics, isocyanates, anhydrides, oxides and inorganic acids.

PERSONAL PROTECTION

Wear appropriate personal protective equipment and clothing including lab coat, safety goggles, gloves and NIOSH-approved respirator. A qualified industrial hygienist should evaluate the need for respiratory protection. Use respiratory protection approved by NIOSH (or equivalent) and appropriate to the hazard. Note: Formaldehyde has an OSHA PEL of 0.75 ppm and ACGIH TLV of 1.0 ppm. The OSHA STEL is 2.0 ppm. Avoid contact of material with skin or eyes. Mechanical ventilation or local exhaust as needed to control exposure to dust, vapors and mists. Access to a safety shower and eye wash. Wash thoroughly after handling.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, colorless solution
Boiling Point: No data available
Vapor Pressure: No data available
Solubility (Water): Soluble
Chemical Formula: No data available
Evaporation Rate: No data available
Melting Point: No data available
Vapor Density: No data available
Specific Gravity: No data available
Percent Volatile: No data available

STABILITY AND REACTIVITY

Unstable at normal temperatures. Paraformaldehyde becomes formaldehyde in solution and depolymerizes to form formaldehyde gas when exposed to air. Hazardous decomposition products include formaldehyde, carbon dioxide, carbon monoxide, and hydrogen. Hazardous decomposition products formed upon contact with water: Decomposition by acids, alkalies and hot water with liberation of formaldehyde. Hazardous polymerization will not occur. Incompatible with alkalies, reactive organic substances, brass, steel, copper, copper alloys, bronze, strong oxidizing agents, strong reducing agents, combustible materials, caustics, isocyanates, anhydrides, oxides and inorganic acids.

TOXICOLOGICAL INFORMATION

EFFECTS OF OVEREXPOSURE:
EYES: Causes eye irritation.
SKIN: May cause irritation and/or allergic reaction. Symptoms may include drying and cracking.
INHALATION: May cause irritation to mucous membranes and upper respiratory tract. May cause allergic reaction.
INGESTION: May cause gastrointestinal irritation with nausea, vomiting and diarrhea.
ADDITIONAL INFORMATION:
Harmful by inhalation, ingestion or skin absorption. Paraformaldehyde becomes formaldehyde in solution and depolymerizes to form formaldehyde gas when exposed to air. Formaldehyde causes cancer in laboratory animals. Formaldehyde, the decomposition product of paraformaldehyde, has been listed as a carcinogen by NTP and IARC. Other medical conditions that may be aggravated by exposure to this material include conjunctivitis of the eye, dermatitis of the skin, asthma and respiratory diseases. Sensitization may occur from the inhalation or skin contact of this product. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting.
Irritation, toxicity and mutation data for paraformaldehyde (powder) listed in RTECS under RV0540000.
Only select RTECS information is provided here. Please see actual RTECS entry for complete information.
Irritation data: Skin Rabbit 500 mg/24H = Severe. Eye Rabbit 100 mg = Severe.
Toxicity data: Oral Rat LD50 = 800 mg/kg (1969). Inhalation Rat LC50 = 1070 mg/m3/4H. Skin Rabbit LDLo = 1000 mg/kg.
Definition(s): RTECS = Registry of Toxic Effects of Chemical Substances.

ECOLOGICAL INFORMATION

No information available.

DISPOSAL CONSIDERATIONS

Dispose of material in accordance with applicable local, state, and federal regulations.

TRANSPORTATION INFORMATION

US DOT / IATA: No applicable information.

REGULATORY INFORMATION

RCRA - No applicable information.
SARA 302 - Final RQ = 1000 lb (454 Kg). This material does not have a TPQ.
SARA 313 - This material contains Formaldehyde (CAS# 50-00-0, off-gas%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
EPA TSCA Section 8(b) - Chemical Inventory.
Exposure Limits - Not established.
California Proposition 65 - This product is or contains chemical(s) known to the state of California to cause cancer (formaldehyde).

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.

05/10/2010