



# **Prairie Mud Service Ltd.**

*"Serving Western Canada with 24 Hour Drilling Mud Service"*

## **MSDS (Material Safety Data Sheet)**

### **SECTION I: IDENTIFICATION OF PRODUCT**

COMPANY: **Prairie Mud Service** DATE: Nov 27/09  
**738 6<sup>th</sup> Street** PHONE: 306-634-3411  
**Estevan, SK S4A 1A4** FAX: 306-634-6694

PRODUCT NAME: **Paraformaldehyde**  
Fungicides, bactericides, and disinfectants; adhesives; hardener and  
PRODUCT USE: waterproofing agent for gelatins  
CHEMICAL FAMILY: Aldehyde Polymer CAS#: 30525-89-4

### **TRANSPORTATION OF DANGEROUS GOODS (TDG)**

PROPER SHIPPING NAME: Paraformaldehyde, solid  
WHMIS CLASSIFICATION: B.4, D.18  
TDG CLASSIFICATION: Not applicable  
UN NUMBER (PIN): 2213  
PACKING GROUP: III

### **SECTION II: PHYSICAL DATA**

PHYSICAL STATE: Solid (very fine solid powder)  
APPEARANCE AND ODOUR: White flaky solid with strong, pungent,  
formaldehyde odor. Powerful, unpleasant, acrid with  
ester-like odour

ODOR THRESHOLD: Not available  
VAPOUR PRESSURE: Not applicable  
VAPOUR DENSITY: (air=1) 1.03  
EVAPORATION RATE: Not available pH : Acidic  
BOILING POINT: N/A  
MELTING POINT: 120°C  
MOLECULAR WEIGHT: Not available  
SOLUBILITY IN WATER: Partial  
SPECIFIC GRAVITY: (water -1) 1.45  
% VOLATILE BY VOLUME: Not available  
PARTICLE DENSITY: 1.4 g/ml  
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available



# **Prairie Mud Service Ltd.**

*"Serving Western Canada with 24 Hour Drilling Mud Service"*

## **MSDS (Material Safety Data Sheet)**

### **SECTION III: FIRE AND EXPLOSION DATA**

CONDITIONS OF FLAMMABILITY:	Flammable
MEANS OF EXTINGUISHING:	Use CO <sub>2</sub> or dry chemical for small fires, alcohol-type aqueous film-forming foam for large fires. Do not use water.
FLASH POINT:	70°C Tag closed cup ASTM D 56
UPPER FLAMMABLE LIMITS:	(% in air) 43.0
LOWER FLAMMABLE LIMITS:	(% in air) 7.0
AUTO IGNITION TEMPERATURE:	The lowest known value is 300°C
HAZARDOUS COMBUSTION PRODUCTS:	Not available
SPECIAL FIRE FIGHTING PROCEDURES:	Wear self-contained breathing apparatus and complete personal protective equipment when potential for exposure to vapours or products of combustion exists. Use water spray to cool nearby fire-exposed structures and vessels.
EXPLOSION HAZARDS:	Extinguish all nearby sources of ignition. This product may form an explosive organic dust cloud.

### **SECTION IV: REACTIVITY DATA**

STABILITY:	STABLE [XX]	UNSTABLE [ ]
INCOMPATIBILITY:	Acids, alkalis, anhydrides, isocyanates, urea, phenol, and oxidizing material	
CONDITIONS TO AVOID:	Heat, sparks, and open flames	
HAZARDOUS REACTIONS/DECOMPOSITIONS:	May liberate carbon monoxide and carbon dioxide, formaldehyde and hydrogen	

### **SECTION V: HEALTH HAZARDS**

EYE CONTACT:	Vapours and dust causes tearing and severe irritation. Dust causes severe burns.
SKIN CONTACT:	Dust can cause drying, cracking, and scaling. Repeated or prolonged contact causes hardening (tanning). May cause allergic dermatitis.
INGESTION:	Causes severe irritation and inflammation of mouth, throat, and stomach. Severe stomach pain follows, with possible loss of consciousness.
INHALATION:	Vapours and mists are highly irritating to the upper throat and lungs with bronchopneumonia and edema possible from extremely exposure. May cause sensitization or an allergic reaction of the respiratory tract.



# **Prairie Mud Service Ltd.**

*"Serving Western Canada with 24 Hour Drilling Mud Service"*

## **MSDS (Material Safety Data Sheet)**

CARCINOGENICITY:	The IARC and the NTP fourth annual report on carcinogens consider formaldehyde gas carcinogenic in animals but there is inadequate evidence for those agencies to assess its carcinogenicity to man. OSHA does not regulate formaldehyde as a carcinogen.
TERATOGENICITY:	No information available.
REPRODUCTIVE TOXICITY:	Formaldehyde showed no evidence of reproductive effects in animal studies (mice, rats, dogs)
MUTAGENICITY:	Although there is no specific information available on paraformaldehyde, its decomposition product, formaldehyde is mutagenic in laboratory tests but not in laboratory animals at inhalation exposures of up to 25 ppm. Rats exposed to 15 ppm of formaldehyde for 24 months developed nasal cancer.
SYNERGISTIC PRODUCTS:	No information available.
EXPOSURE LIMITS:	ACGIH TLV (OSHA PEL) 1ppm, ACHIGH (OSHA) 2 STEL (Celanese) 0.5 TWA 8hr (action level) Check local regulations as they may differ.
IRRITANCY:	Moderate
CHRONIC EFFECTS OF EXPOSURE:	No specific information available on paraformaldehyde. However, formaldehyde, its decomposition product has been evaluated and the results of a mortality study of long term employees of a formaldehyde producer showed no evidence that formaldehyde causes cancer or other serious chronic health effects. There is no evidence of reproductive effects in animal studies.

## **SECTION VI: FIRST AID MEASURES**

EYE CONTACT:	Flush eyes with water for at least 15 minutes. Do not use an eye ointment. Contact physician immediately.
SKIN CONTACT:	Remove contaminated clothing and wash contaminated skin with large amount of water and on-abrasive soap. If irritation persists, consult a physician.
INGESTION:	Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication the toxic material was ingested; the absence of signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt, or waistband. If the victim is not breathing perform mouth-to-mouth resuscitation. Seek immediate medical attention. Induce vomiting by sticking finger in throat.
INHALATION:	Remove patient from contaminated area. If breathing has stopped, give artificial respiration, then oxygen if needed. Contact physician immediately.



# **Prairie Mud Service Ltd.**

*"Serving Western Canada with 24 Hour Drilling Mud Service"*

## **MSDS (Material Safety Data Sheet)**

### **SECTION VII: PREVENTATIVE MEASURES**

RESPIRATORY PROTECTION:	Use full-face approved organic vapour cartridge or canister respirator within limitations (NIOSH approved). In all other situations use self contained breathing apparatus.
SKIN PROTECTION:	Use impervious body covering and boots where spills or splashes may occur. Handle with gloves made of neoprene or rubber. A safety shower and eye bath should be available.
EYE/FACE PROTECTION:	Chemical goggles and full face shield.
PROTECTIVE CLOTHING:	Long sleeved shirt, trousers, safety shoes, rubber gloves, and rubber apron.
SPECIAL HANDLING PROCEDURES:	When transferring follow proper grounding procedures. Use with adequate ventilation. Avoid breathing dust and vapour. Avoid contact with eyes, skin, and clothing. Wash thoroughly with soap and water after handling. Wash contaminated clothing thoroughly before re-use. Discard contaminated leather clothing. Do not enter storage area unless adequately ventilated.
STORAGE REQUIREMENTS:	Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place. Ground all equipment containing material. Keep container dry. Provide emergency exhaust.
ENGINEERING CONTROLS:	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume, or mist use ventilation to keep exposure to airborne contaminants below the exposure limit.
SPECIAL SHIPPING REQUIREMENTS:	UN 1113, Class .1 (9.2) PG II
OTHER PRECAUTIONS:	Ensure safety shower and eye wash station are readily available. Containers, even those that have been emptied, will retain product residue and vapours. Always obey hazard warnings and handle empty containers as if they were full.

### **SECTION VIII: ENVIRONMENTAL PROTECTION DATA**

#### **STEPS TO BE TAKEN IN CASE THE MATERIAL IS SPILLED OR RELEASED**

Wear protective equipment including rubber boots, rubber gloves, rubber apron, and a self contained breathing apparatus in the pressure demand mode or a supplied air respirator. If the spill or leak is small, a full face-piece air purifying cartridge equipped with particulate filters / acid gases may be satisfactory. In any event, always wear eye protection. For small spills sweep up and dispose of in a DOT approved waste container. Keep out of sewers, storm drains, surface waters, and soil. Comply with all applicable government regulations on spill reporting.

ENVIRONMENTAL EFFECTS: Not available



# ***Prairie Mud Service Ltd.***

*"Serving Western Canada with 24 Hour Drilling Mud Service"*

## **MSDS (Material Safety Data Sheet)**

DEACTIVATING CHEMICALS: Ammonium hydroxide or sodium sulphite  
WASTE DISPOSAL METHODS: Preferred method is incineration or biological treatment in federal/provincial facility. Product must be disposed of properly under applicable regulations for industrial waste.

**Note: Empty containers can have residues, gases and mists and are subject to proper waste disposal.**

## **SECTION IX: PREPARATION**

DATE ISSUED: November 6, 2009  
SUPERSEDES: July 24, 2007

The above information is supplied as a customer service and is provided in good faith. Although it has been based on data drawn from sources deemed to be reliable, Prairie Mud Service cannot guarantee its accuracy and assumes no responsibility for conditions resulting from its use.