



**MacDermid**  
Incorporated

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<b>2</b>	<b>0</b>	<b>0</b>	<b>-</b>
Health	Flammability	Reactivity	Other

## MATERIAL SAFETY DATA SHEET

PRODUCT **ISOPREP 188** ISSUE DATE **05/01/94**  
 PRODUCT CODE **12619** REVISED DATE **6/30/2003**

24 Hour Emergency Number: **CHEMTREC(1-800-424-9300)** 3

### SECTION 1 :- PRODUCT IDENTIFICATION

TRADE NAME **ISOPREP 188**  
 CHEMICAL FAMILY **INORGANIC SALTS**  
 FORMULA **Proprietary Mixture**

#### HMIS RATING:

**2** Health **0** Flammability  
**0** Reactivity **Other**

(0 = Insignificant, 1 = Slight, 2 = Moderate, 3 = High and 4 = Extreme)

### SECTION 2 :- COMPOSITION / INFORMATION ON INGREDIENTS

MacDermid Inc. has identified the following chemical ingredient(s) as hazardous.

Ingredient	CAS#	By Weight %
Potassium bichromate	7778-50-9	5 - 10
Sodium bisulfate	7681-38-1	87 - 93

### SECTION 3 :- PHYSICAL DATA

DENSITY	Not listed	FORM	Solid
SPECIFIC GRAVITY	N/A	PH	N/A
FREEZING POINT	N/A	FLASH POINT	NOT APPLICABLE
VAPOR PRESSURE	N/A	VOLATILE %	N/A
BOILING POINT	N/A	MELTING POINT	Unknown
CHEMICAL OXYGEN DEMAND (COD)	Unknown mg/l		
BIOLOGICAL OXYGEN DEMAND (BOD)	Unknown		
SOLUBILITY IN WATER	Moderate		
COLOR/ODOR	Light orange powder/odorless		

NOTE: These physical properties are typical values for this product.

### SECTION 4 :- FIRE AND EXPLOSION DATA

FLASH POINT NOT APPLICABLE  
 EXTINGUISHING MEDIA Dry chemical, carbon dioxide, foam, water. As appropriate for surrounding material. NEVER allow run-off to enter sewers or waterways.  
 UNUSUAL FIRE & EXPLOSION HAZARDS When heated to decomposition, toxic fumes are emitted. Wear self-contained breathing apparatus/protective clothing.

### SECTION 5 :- FIRST AID DATA

EYES Flush with water for 15 minutes. Contact physician immediately.

**SKIN** Wash contaminated skin with large amounts of water. Remove and isolate contaminated clothing. If irritation develops, get medical aid.

**INGESTION** If ingested, rinse the mouth and throat with water. Do not induce vomiting. Contact physician immediately

**INHALATION** Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Contact a physician.

**CAUTION** If unconscious - having trouble breathing - or in convulsions do not induce vomiting or give water.

Always clean contaminated clothing and gear prior to reuse. NEVER administer anything to an unconscious person.

**SECTION 6 :- HEALTH EFFECTS DATA**  
**Primary Route(s) of Exposure : Eye, Skin, Inhalation and Ingestion**

**EYE CONTACT (ACUTE)** Direct eye contact will cause severe irritation and possible burns.

**EYE CONTACT (CHRONIC)** No data available.

**SKIN CONTACT (ACUTE)** Will cause severe irritation to the skin. Contact with broken skin may result in ulcers.

**SKIN CONTACT (CHRONIC)** Skin sensitization may occur

**INGESTION (ACUTE)** Ingestion will cause severe irritation and burns to mouth, throat and stomach. May cause liver and kidney damage.

**INGESTION (CHRONIC)** Repeated overexposure may cause damage to kidneys and liver.

**INHALATION (ACUTE)** Inhalation of dusts will cause severe irritation to mucous membranes and respiratory tract.

**INHALATION (CHRONIC)** Chronic overexposure to dusts may cause ulceration, bleeding, and perforation of the nasal septum. Overexposure may affect kidneys.

**SECTION 7 :- PERSONAL PROTECTIVE DATA**

**RESPIRATORY PROTECTION** If there is a value for OSHA-PEL/ACGIH-TLV in section 13 and it is exceeded, it is recommended that a NIOSH approved respirator be used. Consult with your Industrial Hygienist for appropriate cartridge selection and use. See 29CFR 1910.134 for details. For large spills, entry into large tanks, vessels or enclosed small spaces with inadequate ventilation, a pressure demand, self contained breathing apparatus is recommended.

**VENTILATION** General ventilation is recommended. Additionally, local exhaust ventilation is recommended where vapors, dusts, mists or aerosols may be released.

**PROTECTIVE EQUIPMENT** Chemically resistant apron, boots and gloves. Recommended material of construction: PVC coated. The availability of a safety shower is recommended.

If clothing is contaminated, remove clothing and thoroughly wash the affected body area. Launder contaminated clothing before reuse. Safety glasses or splash proof goggles, face shield. The availability of an eye wash is recommended. Consult with your Safety Professional/Industrial Hygienist for specific information regarding applications at your facility.

These are general recommendations to provide a safe level of protection for various material handling conditions. Consult with your Safety Professional/Industrial Hygienist for specific information regarding applications at your facility

## **SECTION 8 :- TOXICOLOGY DATA**

### **TOXICITY STUDIES :**

Toxicity studies have not been conducted on this product. However toxicity literature surveys have been conducted on the ingredient(s) in section 2. The results are as follows:

**ACUTE ORAL TOXICITY** Potassium bichromate- orl-hmn LDLo: 143 mg/kg

**ACUTE DERMAL TOXICITY** Potassium bichromate- skn-rbt LD50: 1.17 g/kg

**ACUTE RESPIRATORY TOXICITY** No data available.

**TOXICITY HAZARD REVIEW (THR)** Potassium bichromate contains hexavalent chromium and is classified as a known human carcinogen by IARC and NTP.

Listed as suspected carcinogen by :

**IARC** YES

**NTP** YES

**OSHA** NO

## **SECTION 9 :- REACTIVITY DATA**

**INCOMPATIBILITY** Alkaline materials.

**HAZARD DECOMPOSITION PRODUCTS** Oxides of sulfur and chromium

**STABILITY** Stable

**HAZARDOUS POLYMERIZATION** No hazardous polymerization.

## **SECTION 10 :- SPILLS & DISPOSAL DATA**

In case of Transportation Accidents, call the following 24 hour telephone number : **CHEMTREC (1-800-424-9300)**

**SPILL CONTROL AND RECOVERY** Avoid dusting. Sweep up and collect for disposal in plastic recovery drum. Do not return to original container. Flush residue to chemical drain with large quantities of water.

**DISPOSAL** Dispose of by an approved method at an approved secure facility.

Please ensure that packaging, including drums, are disposed of in a responsible manner and in accordance with federal, and your state's, solid/hazardous waste regulations. You may want to refer to [www.reusablepackaging.org](http://www.reusablepackaging.org) for further disposal guidance.

Due to more restrictive waste disposal regulations, NEVER wastetreat or dispose of material until you check your appropriate local, state, & federal regulations for requirements. Spills may REQUIRE notification to FEDERAL, STATE and/or LOCAL AUTHORITIES.

**SECTION 11 :- TRANSPORTATION DATA**

**DOT PROPER SHIPPING NAME** CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.  
(CONTAINS SODIUM BISULFATE/POTASSIUM BICHROMATE)

**HAZARD** CORROSIVE MATERIAL

**UN/NA#** UN3260

**DOT REPORTABLE QUANTITY (RQ)** NOT APPLICABLE **Pkg Grp** III

**IMO NAME** CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S. UN3260

**IMO Class/Sub Class** CORROSIVE

**UN/NA#** UN3260 **Pkg Grp** III

**IATA NAME** CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

**IATA Cls/Sub Cls** CORROSIVE

**UN/NA#** UN3260 **Pkg Grp** III

EXPORT LICENSE MAY BE REQUIRED TO EXPORT THIS PRODUCT

**SECTION 12 :- GENERAL STORAGE DATA**

**STORAGE TEMPERATURE:** Maximum: 120.00°F 48.8°C Minimum: N/A

Material should be stored in the properly sealed original container  
Corrosive: Corrosive materials must not be above, below or adjacent to:  
flammables or oxidizers.

**SECTION 13 :- REGULATORY DATA**

The following regulations apply to this product.

**FEDERAL REGULATIONS**

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:  
Based on our evaluation, the following ingredients in this product are subject to this rule:

Chemical Name	CAS#	By Weight%	OSHA-PEL	ACGIH-TLV
Potassium bichromate	7778-50-9	5 - 10	.1 mg/m3	.05 mg/m3
Sodium bisulfate	7681-38-1	87 - 93	N/A	N/A

**CERCLA/SUPERFUND, 40 CFR 117, 302/304 :** Notification of spills of this product required

**SARA/SUPERFUND AMENDMENTS & REAUTHORIZATION ACT OF 1986 (TITLE III)**

**Sections 302, 311, 312 & 313**

**SECTION 302 : Extremely Hazardous Substances**

This product does not contain ingredient(s) as listed in APPENDIX A of 40 CFR 355.

**SECTIONS 311 & 312 - M.S.D.S REQUIREMENTS (40 CFR 370)**

This product contains ingredient(s) that may require reporting under Hazardous Chemical Inventory Reporting

- Immediate (Acute) health hazard
- Sudden release of pressure hazard
- Delayed (Chronic) health hazard
- Reactive Hazard
- Fire hazard

Under Section 311, submittal of MSDS or a list of product names to the local emergency planning commission, state emergency response commission, the local fire department is required after October 17, 1987. Consult the regulation for pertinent changes and updates.

**SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372)**

This product contains ingredient(s) listed under 40 CFR 372.65

Ingredient	CAS#	By Weight %
Potassium bichromate	7778-50-9	5 - 10

**TOXIC SUBSTANCE CONTROL ACT (TSCA)**

TOXIC SUBSTANCE CONTROL ACT (TSCA): The chemical ingredient(s) in this product are listed on the 8(b) Inventory List (40 CFR 710).

**RESOURCE CONSERVATION & RECOVERY ACT (RCRA), 40 CFR 261 SUBPARTS C & D**

Please refer to section 10, disposal information for pertinent data.

**TOTAL TOXIC ORGANICS**

This product does not contain ingredient(s) on the list of Total Toxic Organics.

**OSHA PROCESS SAFETY (1910.119)**

This product does not contain ingredient(s) listed in APPENDIX A of 29 CFR 1910.119 of Highly Hazardous Chemicals, Toxics, and Reactives of OSHA process safety management.

**CLEAN AIR ACT**

This product contains ingredient(s) listed on the Hazardous Air Pollutants of CAA 40 CFR 112(G).

Ingredient	CAS#	By Weight %
Potassium bichromate	7778-50-9	5 - 10

**OZONE DEPLETING SUBSTANCES**

This product does not contain ingredient(s) listed on Ozone Depleting Substances of CAA 40 CFR 82.

**STATE REGULATIONS**

**CALIFORNIA PROPOSITION 65**

This product contains ingredient(s) listed on California Prop 65 suspected carcinogen List.

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Ingredient	CAS#	By Weight %
Potassium bichromate	7778-50-9	5 - 10

#### MICHIGAN CRITICAL MATERIALS

This product contains ingredient(s) listed on the Michigan Critical Material Register.

Ingredient	CAS#	By Weight %
Potassium bichromate	7778-50-9	5 - 10

The information listed above does not include all Federal, State, and International regulations. The regulations listed above may change from time to time; it is the users responsibility to keep advised of current regulatory requirements.

Prepared by MacDermid Inc. Safety & Regulatory Compliance Department, based upon publicly available reference information.

#### SECTION 14 :- USER NOTIFICATION

To the best of our knowledge the information contained herein is correct. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. Users of any chemical should satisfy themselves that the conditions and methods of use assure that the chemical is used safely. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER NATURE ARE MADE HERE UNDER WITH RESPECT TO THE INFORMATION CONTAINED HEREIN OR THE CHEMICAL TO WHICH THE INFORMATION REFERS.

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