Diamond Shamrock Chemical Company

DIAMOND SHAMROCK CORPORATION
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MATERIAL SAFETY DATA SHEET

Similar To: United States Department of Labor
Wage and Labor Standards Administration
Bureau of Labor Standards (Form LSB 0034)

DPM 956-1

CHEMICAL NAME (In Full) Sodium Bichromate Dihydrate

PRODUCT NAME Technical Sodium Bichromate Granular

FORMULA $Na_2Cr_2O_7 \cdot 2H_2O$

GENERAL INFORMATION

Sodium bichromate is commercially available as a concentrated liquid and as a granular product. Sodium bichromate is widely used in chemical and allied industries. Sodium bichromate is unregulated by the Interstate Commerce Commission. It is mildly oxidizing in character but becomes a strong oxidizer in concentrated solutions in presence of strong acids. Sodium bichromate is noncorrosive to metal, is noncombustible but may react slowly with certain organic material such as paper and clothing fibers.

HAZARD CLASSIFICATION

I. IMPORTANT PHYSICAL and CHEMICAL PROPERTIES

PHYSICAL STATE	Liquid or Solid Crystals	FLAMMABLE LIMITS	----	VAPOR PRESSURE	----
COLOR	Liquid - dark red Crystals - orange-red	LIGHT SENSITIVITY	----	TEMP. MMHg.	----
ODOR	None	SOLUBILITY (20°C)	70% by weight		
FLASH POINT (Closed Cup)	----	SPECIFIC GRAVITY (H_2O = 1.0)	1.706 for 70% solution		
BOILING POINT	400°C decomposes	THRESHOLD-LIMIT VALUE (AIR BORNE)	0.1 mg/cubic meter as CrO_3	% VOLATILE (Volume)	----
AUTOIGNITION TEMPERATURE	----	VAPOR DENSITY AIR = 1.0	----	EVAPORATION RATE (Ether = 1.0)	----
CRITICAL TEMP.	----	VISCOSITY 20°C	10 centipoises for 70% solution	REACTIVITY	Mildly oxidizing in solution but becomes strong oxidizing in strong acid solution.
DENSITY AT 20°C	2.35 for solid	MINIMAL LETHAL DOSE	Poisonous - see section on health hazards p. 2.		
HEAT OF COMBUSTION	Noncombustible	LD50 TEST	----		

II. CHEMICAL REACTIVITY DATA

STABLE [X] Yes [ ] No SELFPOLYMERIZE [ ] Yes [X] No

HAZARDOUS DECOMPOSITION PRODUCTS

None

AVOID CONTACTS WITH THESE MATERIALS

Strong acids and oxidizable materials if in presence of acids.

CONDITIONS TO AVOID

Avoid contact with eyes or skin. Avoid breathing vapors or dust. Do not take internally. Avoid storage in humid air.

JUL 25 1984

HEALTH HAZARDS

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Sodium Dichromate is not dangerous to transport and use if handled properly. It may cause irritation to mucous membranes and skin. It can cause irritation and conjunctivitis if in contact with the eyes. It can cause ulceration of skin wounds. If inhaled, it can cause irritation of the respiratory system. May cause harmful effects if swallowed and death result if ingested in excessive amounts.

. FIRST AID PROCEDURES

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ntidote: Give magnesia, chalk, or whiting suspended in water. Follow with an emetic (a tablespoon of mustard in a glass of warm water). Then give olive oil or mucilaginous drinks. Call a physician.

on

rrigate nasal passages and mouth with salt water.

ntact

lush skin with copious quantities of water without delay. Clothing penetrated with olutions or dusts should be removed promptly.

With Eyes

ush eyes with water for at least 15 minutes without delay. Eyelids should be held apart ring irrigation to insure contact of water with entire surface of eyes and lids. Call a ysician without delay.

SONAL PROTECTIVE EQUIPMENT

oves, chemical safety goggles, and dust respirator (U.S. Bureau of Mines 2175 model 7100 American Optical R2090 Red Devil with mist filter or equivalent.)

RE and EXPLOSION

dium Dichromate will not burn or support combustion.

ifting (Procedure, Equipment)

ash with water.

SPILLS and LEAKS

Solids may be shoveled up, followed by flushing with water. Remaining traces should be neutralized with soda ash.

WASTE DISPOSAL

The hexavalent chromium in sodium bichromate solutions may be reduced to trivalent chromium by a variety of reducing agents such as sodium bisulfite, sodium sulfite, sulfur dioxide or ferrous sulfate or chloride. The reduced chromium may then be precipitated as the hydrous chromic oxide by neutralizing to a pH of 7.0 with soda ash, caustic soda, or lime.

DISPOSAL and RETURN PROCEDURES (Returnable Containers)

Most sodium bichromate containers are nonreturnable. Returnable containers should be tightly closed after emptying to avoid contamination.

NON-RETURNABLE CONTAINERS

Empty containers should be rinsed with water before disposal. Methods of disposal depend upon local laws and ordinances.

SPECIAL HANDLING and STORAGE PROCEDURES

Store in a dry location to avoid caking of bagged material and the rusting of steel drums.

Avoid contact with skin or eyes.

Do not swallow or inhale mists or dusts.

SAMPLE WARNING LABEL

This is a copy of the label which appears on all containers of this chemical. It should be noted that the information shown is for a general class of chemicals and should not be used inplace of the more detailed information presented in this booklet.

WARNING: POISON

Contains Chromates or Bichromates

HARMFUL DUST—MAY CAUSE RASH OR EXTERNAL ULCERS

Keep container closed. Avoid contact with skin and eyes. Avoid breathing dust or solution spray. In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes; for eyes, get medical attention. Wash clothing before reuse. Use fresh clothing daily. Take hot shower after work using plenty of soap.

ANTIDOTE: GIVE MAGNESIA, CHALK OR WHITING SUSPENDED IN WATER. FOLLOW WITH AN EMETIC (A TABLESPOON OF MUSTARD IN A GLASS OF WARM WATER). THEN GIVE OLIVE OIL OR MUCILAGINOUS DRINKS. CALL A PHYSICIAN.

LP 21640-T

NOTICE

All information, recommendations and suggestions appearing herein concerning our product are based upon tests and data believed to be reliable; however, it is the user's responsibility to determine the safety, toxicity, and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Diamond Shamrock Corporation as to the effects of such use, the results to be obtained, or the safety and toxicity of the product nor does Diamond Shamrock Corporation assume any liability arising out of use, by others, of the product referred to herein. Nor is the information herein to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.

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