



# J. T. Baker Chemical Co.

222 Red School Lane Phillipsburg, N.J. 08865  
24-Hour Emergency Telephone -- (201) 859-2151

Chemtrec # (800) 424-9300  
National Response Center # (800) 424-8802

**MATERIAL  
SAFETY DATA  
SHEET**

C4323 -02

Chromium Nitrate, 9-Hydrate

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Effective: 09/10/86

Issued: 07/13/87

## SECTION I - PRODUCT IDENTIFICATION

Product Name: Chromium Nitrate, 9-Hydrate  
Formula:  $\text{Cr}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O}$   
Formula Wt: 400.15  
CAS No.: 7789-02-8  
NIOSH/RTECS No.: GB6300000  
Common Synonyms: Chromic Nitrate, 9-Hydrate  
Product Codes: 1606

## PRECAUTIONARY LABELLING

BAKER SAF-T-DATA<sup>TM</sup> System

HEALTH	FLAMMABILITY	REACTIVITY	CONTACT
<b>2</b>	<b>0</b>	<b>2</b>	<b>2</b>
MODERATE	NONE	MODERATE	MODERATE

Laboratory Protective Equipment



## Precautionary Label Statements

### WARNING!

HARMFUL IF SWALLOWED OR INHALED  
CAUSES IRRITATION

Avoid contact with eyes, skin, clothing.

Avoid breathing dust. Keep in tightly closed container. Use with adequate ventilation. Wash thoroughly after handling.

## SECTION II - HAZARDOUS COMPONENTS

Component	%	CAS No.
Chromium Nitrate, 9-Hydrate	90-100	7789-02-8

## SECTION III - PHYSICAL DATA

Boiling Point:	N/A	Vapor Pressure(mmHg):	N/A
Melting Point:	60°C ( 140°F)	Vapor Density(air=1):	N/A

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## SECTION III - PHYSICAL DATA (Continued)

Specific Gravity: N/A  
(H<sub>2</sub>O=1)

Evaporation Rate: N/A  
(Butyl Acetate=1)

Solubility(H<sub>2</sub>O): Appreciable (more than 10 %) % Volatiles by Volume: 0

Appearance & Odor: Violet odorless crystals.

## SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: N/A

Flammable Limits: Upper - N/A % Lower - N/A %

Fire Extinguishing Media  
Use water spray.

### Special Fire-Fighting Procedures

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full facepiece operated in positive pressure.

### Unusual Fire & Explosion Hazards

Strong oxidizer. Contact with other material may cause fire.  
Can react violently with shock, friction or heat.

Toxic Gases Produced  
nitrogen oxides

## SECTION V - HEALTH HAZARD DATA

NOTE: While the specific compounds cannot be identified, there is evidence that certain chromium compounds cause cancer in humans and experimental animals. Chromium is widely distributed in air, water, soil and food. Trivalent chromium may be an essential trace ingredient in the human diet. All chromium compounds are regulated by the EPA, but no specific data is available to link trivalent chromium to cancer. Prudent judgement dictates that exposure should be minimized as much as possible. ( See IARC Monograph on Evaluation of Carcinogenic Risk of Chemicals to Humans, Volume 23 Lyon, France IARC, 1980, pp. 205-323).

Threshold Limit Value (TLV/TWA): 0.5 mg/m<sup>3</sup> ( ppm)

Toxicity: LD<sub>50</sub> (oral-rat)(mg/kg) - 3250

Carcinogenicity: NTP: Yes IARC: Yes Z List: No OSHA reg: No



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## SECTION V - HEALTH HAZARD DATA (Continued)

### Effects of Overexposure

Dust may irritate eyes.  
Dust may cause sneezing and coughing.  
Contact with skin or eyes may cause irritation.

### Medical Conditions Generally Aggravated By Exposure

None Identified

### Routes Of Entry

ingestion, eye contact, skin contact

### Emergency and First Aid Procedures

CALL A PHYSICIAN.

If swallowed, if conscious, immediately induce vomiting.  
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.  
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Flush skin with water.

## SECTION VI - REACTIVITY DATA

Stability: Stable

Hazardous Polymerization: Will not occur

Conditions to Avoid: heat

Incompatibles: strong reducing agents, aluminum, magnesium, organic materials, combustible materials

Decomposition Products: oxides of nitrogen

## SECTION VII - SPILL AND DISPOSAL PROCEDURES

### Steps to be taken in the event of a spill or discharge

Wear self-contained breathing apparatus and full protective clothing.  
Keep combustibles (wood, paper, oil, etc.) away from spilled material.  
With clean shovel, carefully place material into clean, dry container and cover; remove from area. Flush spill area with water.

### Disposal Procedure

Dispose in accordance with all applicable federal, state, and local environmental regulations.

EPA Hazardous Waste Number: D007 (EP Toxic Waste)

## SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT

Ventilation: Use general or local exhaust ventilation to meet TLV requirements.

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SECTION VIII - INDUSTRIAL PROTECTIVE EQUIPMENT (Continued)

Respiratory Protection: A respirator with dust/mist filter is recommended.  
If airborne concentration exceeds TLV, a self-contained breathing apparatus is advised.

Eye/Skin Protection: Safety glasses with sideshields, uniform, rubber gloves are recommended.

SECTION IX - STORAGE AND HANDLING PRECAUTIONS

SAF-T-DATA<sup>TM</sup> Storage Color Code: Orange (general storage)

Special Precautions

Keep container tightly closed. Store separately and away from flammable and combustible materials.

SECTION X - TRANSPORTATION DATA AND ADDITIONAL INFORMATION

DOMESTIC (D.O.T.)

Proper Shipping Name	Nitrate, n.o.s. (Chromium Nitrate, 9-Hydrate)
Hazard Class	Oxidizer
UN/NA	NA1477
Labels	OXIDIZER
Reportable Quantity	1 LBS.

INTERNATIONAL (I.M.O.)

Proper Shipping Name	Chromium nitrate
Hazard Class	5.1
UN/NA	UN2720
Labels	OXIDIZING AGENT

N/A = Not Applicable or Not Available

The information published in this Material Safety Data Sheet has been compiled from our experience and data presented in various technical publications. It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions. We reserve the right to revise Material Safety Data Sheets periodically as new information becomes available. J. T. Baker makes no warranty or representation about the accuracy or completeness nor fitness for purpose of the information contained herein.

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