



Safety Data Sheet

In accordance with CFR 1910.1200 (OSHA HCS)

SDS No. 329

Date of review: February 8, 2019

1 Identification of substance and company

Product name: Calcium chromate
Product code: 11331, 90331, C2763
Relevant identified uses of the substance: Research and product development
Manufacturer/Supplier: Noah Technologies Corporation
1 Noah Park
San Antonio, Texas 78249-3419
Phone: 210-691-2000
Fax: 210-691-2600
Web site: www.noahtech.com
Emergency information: CHEMTREC
800-424-9300

2 Hazards identification

Emergency Overview:

Pictogram(s):



Signal word(s):

Danger

Hazard statements:

H302 Harmful if swallowed
H350 May cause cancer
H410 Very toxic to aquatic life with long lasting effects

Precautionary statements:

P201 Obtain special instructions before use
P202 Do not handle until all safety precautions have been read and understood
P264 Wash skin thoroughly after handling
P270 Do not eat, drink or smoke when using this product
P273 Avoid release to the environment
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection
P301+P310+P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P308+P313 IF exposed or concerned: Get medical advice/ attention
P391 Collect spillage
P405 store locked up
P501 Dispose of contents/ container to an approved waste disposal plant

GHS Classification:

Acute toxicity, oral - 4
Carcinogenicity - 1B
Acute aquatic toxicity - 1
Chronic aquatic toxicity - 1

Hazards not otherwise classified:

None

HMIS ratings (scale 0-4):

Health hazard: 2*
Flammability: 0
Physical hazard: 0

3 Composition/Information on ingredients

Chemical name: Calcium chromate
Designation:
CAS number: 13765-19-0
EC number: 237-366-8
Formula: CaCrO₄
Synonyms: Calcium chrome yellow

4 First aid measures

After inhalation:	Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice
After skin contact:	Immediately wash with water and soap and rinse thoroughly. Seek medical advice.
After eye contact:	Rinse opened eye for several minutes under running water then consult a physician
After ingestion:	Do not induce vomiting, rinse mouth with water, consult a physician
Information for doctor:	Show this safety data sheet to the doctor in attendance
Symptoms/effects; acute and delayed:	May cause violent gastroenteritis, peripheral vascular collapse, dizziness, intense thirst, muscle cramps, shock, coma, abnormal bleeding, fever, liver damage and acute renal failure Can cause sore throat, vomiting, diarrhea. Repeated or prolonged exposure can cause ulceration and perforation of the nasal septum, respiratory irritation, liver and kidney damage and ulceration of the skin.
Immediate medical attention and special treatment needed:	See above

5 Fire-fighting measures

Suitable and unsuitable extinguishing agents:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Special hazards caused by the material, its products of combustion or resulting gases:	Oxides of calcium and chromium
Special fire fighting procedures:	Wear self-contained breathing apparatus (SCBA) and fully protective impervious suit Minimize amount of water if containers are opened or burned.
Unusual fire and explosion hazard:	May release oxygen upon decomposition, which enhances combustion

6 Accidental release measures

Person-related safety precautions:	Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Measures for environmental protection:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Measures for cleaning/collecting:	Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal.
Additional information:	This product contains chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning & Community Right-to-know Act of 1986 and 40 CFR 372 See Section 7 for information on safe handling See Section 8 for information on personal protective equipment See Section 13 for information on disposal See Section 15 for regulatory information

7 Handling and storage

Information for safe handling:	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Keep container tightly sealed. Store in a cool, dry place in tightly closed containers. Ensure good ventilation at the workplace.
Information about protection against explosions and fires:	Reaction with combustibles or readily oxidizable material may cause fire Mixture with boron burns violently if ignited
Storage requirements to be met by storerooms and containers:	Keep container tightly closed in a dry and well-ventilated place away from flammables
Incompatibility (avoid contact with):	Reducing agents, hydrazine, flammable substances, organic substances, powdered metals

8 Exposure controls/personal protection

Ventilation requirements:	Keep container tightly sealed Store in cool, dry place in tightly closed containers Ensure good ventilation at the workplace Open and handle container with care
Components with exposure limits that require monitoring:	ACGIH TLV: TWA 0.001 mg(Cr)/m ³ ; lung cancer, suspected human carcinogen OSHA PEL: TWA 0.005 mg (Cr(VI))/m ³ :8H - OSHA Specifically Regulated Chemicals/ Carcinogens OSHA 1910.1026 This standard applies to occupational exposures to chromium (VI) in all forms and compounds in general industry, except: (a) Exposures that occur in the application of pesticides regulated by the Environmental Protection Agency or another Federal government agency (e.g., the treatment of wood with preservatives); (b) Exposures to Portland cement; or (c) Where the employer has objective data demonstrating that a material containing chromium or a specific process, operation, or activity involving chromium cannot release dusts, fumes, or mists of chromium (VI) in concentrations at or above 0.5 µg/m ³ as an 8-hour time-weighted average (TWA) under any expected conditions of use. Chromium (VI) [hexavalent chromium or Cr(VI)] means chromium with a valence of positive six, in any form and in any compound
Additional information:	No further relevant information available
General protective and hygienic measures:	The usual precautionary measures for handling chemicals should be adhered to Keep away from foodstuffs, beverages and food Instantly remove any soiled and impregnated garments

Wash hands during breaks and at the end of the work
Avoid contact with the eyes and skin

Personal protective equipment:

Respiratory protection:

(Use only NIOSH or CEN approved Equipment)

Hand protection:

Filter-dust, fume, or mist respirator
Use self-contained respiratory protective device in emergency situations
Impervious gloves such as nitrile rubber
Check protective gloves prior to each use for their proper condition
Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact

Eye protection:

Skin protection:

Additional protective equipment:

Precautionary labeling:

Safety goggles or face shield and safety glasses
Protective work clothing with full length apron
Sufficient to prevent any skin contact. Emergency eyewash and safety shower.
Wash thoroughly after handling
Do not get in eyes, on skin or on clothing
Do not breathe dust, vapor, mist, gas
Keep container closed
Do not store near combustibles
Keep material dry
Store in a secured area

9 Physical and chemical properties

Physical state: Crystalline powder
Color: Yellow to greenish-yellow
Odor: Odorless
Odor threshold: No data available
Molecular Weight (Calculated): 156.08
pH Acidic
Melting point/freezing point/range: 1020 C (decomposes)
Boiling point/range: No data available
Sublimation temperature/start: No data available
Decomposition temperature: 1020 C
Flammability (solid, gas): No data available
Flash point: Not applicable
Autoignition temperature: No data available
Danger of explosion: No data available
Flammable limits: Not applicable
Evaporation Rate: No data available
Vapor pressure (mm Hg): No data available
Vapor density: No data available
Specific gravity: 2.890
Bulk density: No data available
Solubility in/Miscibility with water: 163 g/L @ 20 C
Partition coefficient n-octanol/water: No data available
Viscosity: No data available
Other information: No additional data available

10 Stability and reactivity

Reactivity: No data available
Chemical stability: Stable under recommended storage conditions
Possibility of hazardous reactions: Contact with reducing agents, flammables, combustibles or readily oxidizable may cause fire
Mixture with boron burns violently if ignited
Conditions to be avoided: Contact with incompatibles
See section 7 for information on proper handling and storage
Materials to be avoided: See above and section 7
Hazardous decomposition products: Oxides of calcium and chromium
(thermal and other)

11 Toxicological information

LD/LC50 values that are relevant for classification: oral-rat LD₅₀: 327 mg/kg
Irritation or corrosion of skin: No data available
Irritation or corrosion of eyes: No data available
Primary irritant or corrosive effect:
on the skin: Irritant to skin and mucous membranes
on the eye: Irritating to eyes
Sensitization: Skin sensitization
Potential health effects:
Inhalation: Extremely destructive to the tissue of the mucous membranes and upper respiratory tract
Ingestion: Extremely destructive to the tissue of the digestive tract

Skin: Corrosive to skin
Eyes: Excessive and prolonged contact may result in permanent eye damage
Signs and symptoms of exposure: May cause violent gastroenteritis, peripheral vascular collapse, dizziness, intense thirst, muscle cramps, shock, coma, abnormal bleeding, fever, liver damage and acute renal failure.
 Can cause sore throat, vomiting, diarrhea.
 Repeated or prolonged exposure can cause ulceration and perforation of the nasal septum, respiratory irritation, liver and kidney damage and ulceration of the skin.

Carcinogenicity: IARC: Group 1 - Carcinogenic to humans
 NTP: Known to be human carcinogen
 OSHA: OSHA specifically regulated carcinogen; see Section 8 for information on personal protective equipment

12 Ecotoxicological information

Toxicity:
Toxicity to fish: No data available
Toxicity to daphnia and other aquatic invertebrates: No data available
Toxicity to algae: No data available
Persistence and degradability:
Biodegradability: No data available
Bioaccumulative potential:
Bioaccumulation: No data available
Mobility in soil: No data available
Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal
 Very toxic to aquatic life with long lasting effects

13 Disposal considerations

Recommendation: Consult state, local or national regulation for proper disposal
 Allow professional disposal company to handle waste
 Must be specially treated under adherence to official regulations

Unclean packagings recommendation: Disposal must be made according to official regulations

14 Transport information

Land transport DOT



Proper shipping name: Environmentally hazardous substance, solid, n.o.s.
Technical name: Calcium chromate
DOT Hazard Class: 9
UN Identification number: UN3077
Label(s): Class 9
Packing group: III
North American Emergency Response Guidebook No.: 171

Air transport ICAO-TI and IATA-DGR:



Proper shipping name: Environmentally hazardous substance, solid, n.o.s.
Technical name: Calcium chromate
DOT Hazard Class: 9
UN Identification number: UN3077
Label(s): Class 9
Packing group: III
North American Emergency Response Guidebook No.: 171

UPS Ground / FedEx Ground



Proper shipping name: Environmentally hazardous substance, solid, n.o.s.
Technical name: Calcium chromate
DOT Hazard Class: 9
UN Identification number: UN3077
Label(s): Class 9
Packing group: III
North American Emergency Response Guidebook No.: 171

UPS Air



Proper shipping name: Environmentally hazardous substance, solid, n.o.s.
Technical name: Calcium chromate
DOT Hazard Class: 9
UN Identification number: UN3077
Label(s): Class 9
Packing group: III
North American Emergency Response Guidebook No.: 171

15 Regulatory information

SARA Section 302 Extremely Hazardous components and corresponding TPQs: Not subject
SARA Section 311 / 312 hazards: Acute Health Hazard, Chronic Health Hazard
SARA Section 313 components: This product contains chemical(s) subject to the reporting requirements of Section 313 of the Emergency Planning & Community Right-to-know Act of 1986 and 40 CFR 372
California Proposition 65 components: WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm
WARNING: This product contains a chemical known to the State of California to cause cancer
TSCA: All components of this product are listed in TSCA Inventory

16 Other information

The above information is accurate to the best of our knowledge. However, since data, safety standards and government regulation are subject to change and the conditions of handling and use, or misuse are beyond our control. NOAH MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. User should satisfy himself that he has all current data relevant to his particular use.