



MATERIAL SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Revision Date 08/18/2013

Version 1.3

SECTION 1. Identification

Product identifier

Product number 104952
Product name Potassium chromate for analysis EMSURE® ACS, Reag. Ph Eur

Relevant identified uses of the substance or mixture and uses advised against

Identified uses Reagent for analysis

Details of the supplier of the safety data sheet

Company EMD Millipore Corporation | 290 Concord Road, Billerica, MA 01821, United States of America | SDS Phone Support: +1-978-715-1335 | General Inquiries: +1-978-715-4321 | Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)

Emergency telephone 800-424-9300 CHEMTREC (USA)
+1-703-527-3887 CHEMTREC (International)
24 Hours/day; 7 Days/week

SECTION 2. Hazards identification

GHS Classification

Skin irritation, Category 2, H315
Eye irritation, Category 2, H319
Skin sensitization, Category 1, H317
Germ cell mutagenicity, Category 1B, H340
Carcinogenicity, Category 1B, Inhalation, H350i
Specific target organ systemic toxicity - single exposure, Category 3, Respiratory system, H335
Acute aquatic toxicity, Category 1, H400
Chronic aquatic toxicity, Category 1, H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS-Labeling

Hazard pictograms



Signal Word
Danger

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Hazard Statements

H340 May cause genetic defects.
H350i May cause cancer by inhalation.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P201 Obtain special instructions before use.
P273 Avoid release to the environment.
P280 Wear protective gloves.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Restricted to professional users.

OSHA Hazards

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Other hazards

None known.

SECTION 3. Composition/information on ingredients

Formula	K ₂ CrO ₄	CrK ₂ O ₄ (Hill)
CAS-No.	7789-00-6	
Molar mass	194.19 g/mol	

Hazardous ingredients

Chemical Name (Concentration)

CAS-No.

potassium chromate (>= 90 % - <= 100 %)
7789-00-6

SECTION 4. First aid measures

Description of first-aid measures

General advice

First aider needs to protect himself.

Inhalation

After inhalation: fresh air. Call in physician.

Skin contact

After skin contact: wash off with plenty of water. Remove contaminated clothing. Get medical attention.

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Eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist.

Ingestion

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician. Subsequently administer: activated charcoal (20 - 40 g in 10% slurry).

Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Allergic reactions

Chromium(VI) is highly toxic. It is absorbed via both the lungs and the gastrointestinal tract. Being strong oxidizers, chromates/ bichromates can cause burns and ulcerations on the skin and mucous membranes and also irritations in the upper respiratory tract. Poorly healing ulcers occur after wound contact. In predisposed persons the substance rapidly leads to sensitization and allergic reactions of the respiratory tract (risk of pneumonia!) and damage to nasal mucous membranes (under given circumstances perforation of the septum). After swallowing severe symptoms in the gastrointestinal tract such as bloody diarrhea, vomiting (aspiration pneumonia!), spasms, circulatory collapse, unconsciousness, formation of methemoglobin. Absorption may result in hepatic and renal damage. Inhalable chromium(VI) compounds gave clear evidence to be carcinogenic in animal experiments. Lethal dose (man): 0.5g. Antidotes: chelating agents such as EDTA, DMPS (Demaval(R)).

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Not combustible.

Has a fire-promoting effect due to release of oxygen.

Ambient fire may liberate hazardous vapors.

Advice for firefighters

Special protective equipment for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

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Advice for emergency responders: Protective equipment see section 8.

Environmental precautions

Do not empty into drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

SECTION 7. Handling and storage

Precautions for safe handling

Work under hood. Do not inhale substance/mixture.

Conditions for safe storage, including any incompatibilities

Dry. Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Store at +5°C to +30°C (+41°F to +86°F).

SECTION 8. Exposure controls/personal protection

Exposure limit(s)

Ingredients

Basis	Value	Threshold limits	Remarks
<i>potassium chromate 7789-00-6</i>			
ACGIH	Time Weighted Average (TWA):	0.01 mg/m ³	Expressed as: as Cr
	Time Weighted Average (TWA):	0.05 mg/m ³	Expressed as: as Cr
NIOSH/GUIDE	Recommended exposure limit (REL):	0.001 mg/m ³	Expressed as: as Cr(VI)
	Recommended exposure limit (REL):	0.5 mg/m ³	Expressed as: as Cr
OSHA_TRANS	PEL:	1 mg/m ³	Expressed as: as Cr
Z1A	Time Weighted Average (TWA):	1 mg/m ³	
	Ceiling Limit Value:	0.1 mg/m ³	Expressed as: as CrO3
OSHA/Z2	Ceiling Limit Value:	0.1 mg/m ³	

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

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Hygiene measures

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

Eye/face protection

Safety glasses

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Other protective equipment:

protective clothing

Respiratory protection

required when dusts are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

SECTION 9. Physical and chemical properties

Physical state	solid
Color	yellow
Odor	odorless
Odor Threshold	not applicable
pH	9.0 - 9.8 at 50 g/l 68 °F (20 °C)
Melting point	985 °C
Boiling point/boiling range	1,832 °F (1,000 °C)
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	The product is not flammable.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapor pressure	low
Relative vapor density	No information available.

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Relative density	2.73 g/cm ³ at 64 °F (18 °C)
Water solubility	637 g/l at 68 °F (20 °C)
Partition coefficient: n-octanol/water	No information available.
Autoignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Bulk density	ca. 1,400 kg/m ³

SECTION 10. Stability and reactivity

Reactivity

See below

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Violent reactions possible with:

Reducing agents, chlorates

Risk of ignition or formation of flammable gases or vapors with:

organic combustible substances, glycerol

Exothermic reaction with:

Sulfides, phosphides

Risk of explosion/exothermic reaction with:

hydrazine and derivatives, hydroxylamine, oxidizable substances

Conditions to avoid

no information available

Incompatible materials

no information available

Hazardous decomposition products

no information available

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SECTION 11. Toxicological information

Information on toxicological effects

Likely route of exposure

Eye contact, Skin contact, Ingestion

Acute inhalation toxicity

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages: damage of respiratory tract

Skin irritation

Causes skin irritation.

Eye irritation

Causes serious eye irritation.

Sensitization

May cause an allergic skin reaction.

CMR effects

Carcinogenicity:

May cause cancer by inhalation.

Mutagenicity:

May cause genetic defects.

Specific target organ systemic toxicity - single exposure

May cause respiratory irritation.

Specific target organ systemic toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

IARC	Group 1: Carcinogenic to humans	
	potassium chromate	7789-00-6
OSHA		
	potassium chromate	7789-00-6
NTP	Known carcinogen.	
	potassium chromate	7789-00-6
ACGIH	A1: Confirmed human carcinogen	
	potassium chromate	7789-00-6

Further information

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This substance should be handled with particular care.

SECTION 12. Ecological information

Ecotoxicity

Toxicity to fish

LC50 Pimephales promelas (fathead minnow): 39.8 mg/l; 96 h (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates

EC50 Daphnia magna (Water flea): 0.02 mg/l; 48 h (ECOTOX Database)

Persistence and degradability

Biodegradability

The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Additional ecological information

Discharge into the environment must be avoided.

SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

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SECTION 14. Transport information

Land transport (DOT)

UN number	UN 3288
Proper shipping name	TOXIC SOLID, INORGANIC, N.O.S. (POTASSIUM CHROMATE)
Class	6.1
Packing group	II
Environmentally hazardous	--

Air transport (IATA)

UN number	UN 3288
Proper shipping name	TOXIC SOLID, INORGANIC, N.O.S. (POTASSIUM CHROMATE)
Class	6.1
Packing group	II
Environmentally hazardous	--
Special precautions for user	no

Sea transport (IMDG)

UN number	UN 3288
Proper shipping name	TOXIC SOLID, INORGANIC, N.O.S. (POTASSIUM CHROMATE)
Class	6.1
Packing group	II
Environmentally hazardous	--
Special precautions for user	yes
EmS	F-A S-A

SECTION 15. Regulatory information

United States of America

OSHA Hazards

Skin irritant
Eye irritant
Skin sensitizer
Respiratory irritant
Carcinogen
Mutagen

This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS, and may deviate from the GHS information on the label and in section 2.

SARA 311/312 Hazards

Acute Health Hazard
Chronic Health Hazard

SARA 313

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The following components are subject to reporting levels established by SARA Title III, Section 313:

Ingredients

potassium chromate 7789-00-6

SARA 302

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

DEA List I

Not listed

DEA List II

Not listed

TSCA 12b

Ingredients

potassium chromate 7789-00-6

US State Regulations

Massachusetts Right To Know

Ingredients

potassium chromate

Pennsylvania Right To Know

Ingredients

potassium chromate

New Jersey Right To Know

Ingredients

potassium chromate

California Prop 65 Components

WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

Ingredients

potassium chromate

Notification status

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL.

SECTION 16. Other information

Training advice

Provide adequate information, instruction and training for operators.

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Full text of H-Statements referred to under sections 2 and 3.

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H340	May cause genetic defects.
H350i	May cause cancer by inhalation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Revision Date 08/18/2013

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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