



DIACHROME CHEMICALS LIMITED
MSDS NO. : 42077 Revise : 30 MAR.2013
PRODUCT NAME : DIACHROME (ALL GRADE)

MATERIAL SAFETY DATA SHEET

Complied with GHS-SDS requirement.

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

MSDS NUMBER : 42077

PRODUCT NAME : DIACHROME (ALL GRADE)

CHEMICAL NAME: $\text{Cr}_2(\text{OH})_2(\text{SO}_4)_2 \cdot \text{Na}_2\text{SO}_4 \cdot x \text{H}_2\text{O}$

GHS PRODUCT IDENTIFIER: Chromium hydroxide sulfate / sodium sulfate

USE OF THE SUBSTANCE/MIXTURE: Leather tanning agent

DETAILS OF SUPPLIER: Diachrome Chemicals Limited

ADDRESS : 386 Bangpoo Industrial Estate Soi 6, Pattana 3 Road, Praksa, Muang, Samutprakarn 10280, Thailand

EMERGENCY TELEPHONE NUMBER : (662)237-4935 OR (662)709-3840

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture :

Classification according to Regulation (EC) NO.1272/2008 [EU-CLP/GHS]:
Acute toxicity category 4, Skin irritant category 2, Eye irritant category 2B
Classification according to EU Directives 67/548/EEC or 1999/45/EC:
Xn; R20 Harmful by inhalation.

GHS LABEL ELEMENTS:

HAZARD PICTOGRAMS:



GHS07

SIGNAL WORD:

Warning

HAZARD STATEMENTS:

H 302 Harmful if swallowed.
H 315 Causes skin irritation.
H 320 Causes eye irritation.
H 332 Harmful if inhaled.

PRECAUTIONARY STATEMENTS:

PREVENTION :

P261 Avoid breathing dust/mist.
P264 Wash thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
P271 Use only outdoors or in well ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

RESPONSES :

P301+P312 If swallowed, call Poison Center or doctor/physician if feel unwell.
P302+P352 If on skin, wash with plenty of soap and water.
P332+P313 If skin irritation occurs, get medical advice /attention.
P305+P351+P338 If in eyes , rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.



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P337+P313 If eye irritation persists, get medical advice/ attention.
P304+P340 If inhaled, remove victim to fresh air and keep at rest in position comfortable for breathing.
P362 Take off contaminated clothing and wash before reuse.

STORAGE : P402+P404 Store in dry place and in closed container.

DISPOSAL : P501 Dispose of content/containers in accordance with applicable local and state regulations.

SUPPLEMENT HAZARD STATEMENTS : None.

3. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE/MIXTURE:	Mixture				
	Chromium hydroxide sulfate/sodium sulfate				
CHEMICAL NAME:	CAS NO.	EC.NO.	Classification according To Regulation EC NO.1272/2008 CLP	Formula	% wt.
CHROMIUM HYDROXIDE SULFATE:	12336-95-7	235-595-8	Acute tox.4 ,H332	Cr(OH) _m (SO ₄) _n .xH ₂ O	63-75
SODIUM SULFATE:	7757-82-6	231-820-9	substance classified as non-hazardous	Na ₂ SO ₄	25-37

Occupational exposure limits are listed in section 8.

4. FIRST AID MEASURES

EYES:

Immediately flush eyes with a directed stream of water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissues. Washing eyes within several seconds is essential to achieve maximum effectiveness. GET MEDICAL ATTENTION IMMEDIATELY.

SKIN:

Immediately flush contaminated areas with water. Remove contaminated clothing and footwear. Wash contaminated areas with plenty of soap and water. Wash clothing before reuse. Discard footwear which cannot be decontaminated. GET MEDICAL ATTENTION IMMEDIATELY.

INHALATION:

Remove to fresh air if safe to transport. Otherwise attempt to provide fresh air by ventilation. If breathing is difficult, have a trained person administer oxygen. If respiration or pulse has stopped, have a trained person administer Basic Life Support (Cardio-Pulmonary Resuscitation/Automatic External Defibrillator) and CALL FOR EMERGENCY SERVICES IMMEDIATELY.

INGESTION:

Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting. Give large quantities of water. (if available, give several glasses of milk.) If vomiting occurs spontaneously, keep airway clear and give more water, GET MEDICAL ATTENTION IMMEDIATELY.

NOTES TO PHYSICIAN:

No specialized procedures. Treat for clinical symptoms.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

Potential acute health effects

Eye contact :	Causes serious eye irritation.
Skin contact :	May cause skin irritation.
Inhalation :	May cause respiratory irritation.
Ingestion :	Harmful if swallowed. May cause serious irritation to mouth, throat, and stomach.



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Over exposure signs/symptoms

Eye contact : Adverse symptoms may include pain, redness and watering.
Skin contact : Adverse symptoms may include irritation or skin sensitization.
Inhalation : Adverse symptoms may include wheezing and breathing difficulties.
Ingestion : Adverse symptoms may include stomach pains.

Indication of any immediate medical attention and special treatment need:

No specialized procedure. Treat for clinical symptoms.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use an extinguishing agent suitable for the surrounding fire.

SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE: Decomposition products may include sulfur oxide, sodium oxide and chromium oxide.

SPECIAL PROTECTIVE ACTION FOR FIRE FIGHTERS : Keep unauthorized personnel removed from the fire site and upwind. If possible fire water heavily contaminated with this materiel should be contained and prevented from being discharged to waterway.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS : Wear NIOSH approved positive pressure self contained breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Follow protective measures provided under Personal Protection in Section 8. Keep unauthorized personnel away.

ENVIRONMENTAL PRECAUTIONS: Do not allow entry into sewers and waterways,

METHOD FOR CLEANING UP: Carefully shovel any spilled powder into a clean dry closed container. Dike spilled liquid material with suitable inert absorbent and place in clean dry container. Neutralize with lime (hydrated) or other alkali and dispose off in accordance with applicable government regulations.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Store in a dry area and keep containers closed to prevent moisture pick-up and caking. The material is hygroscopic.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

APPROPRIATE ENGINEERING CONTROLS: Handle product in a well ventilated area. If product is handled in an open system, the use of process enclosures, local exhaust ventilation and/or other engineering controls should be considered to control airborne levels to below recommended exposure limits or below acceptable levels where there are no limits.

PERSONAL PROTECTIVE EQUIPMENTS:

RESPIRATORY:

Wear a NIOSH approved respirator following manufacturer's recommendations where airborne contaminants may occur.



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EYE/FACE:

Wear chemical safety goggles plus full face shield to protect against splashing when appropriate.

SKIN:

Wear protective clothing to minimize skin contact.

OTHER:

Emergency shower and eyewash facility should be in close proximity.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Dark green powder.
Odor Threshold:	Not determined
Specific Gravity (Water=1):	1.7
Vapor Pressure:	Not determined
Vapor Density (Air=1):	Not determined
Density:	Not determined
Evaporation Rate:	Not determined
% Volatiles by Wt.:	Not determined
Boiling Point:	99 °C (210 °F) (60% solution)
Freezing Point:	Not determined
Melting Point:	Not determined
Solubility in Water (% by wt.):	75%
pH:	~3 (10% solution)
Octanol/Water Partition Coefficient:	Not determined
Thermal Decomposition Temperature:	>250 °C (>482 °F)
VOC (g/l by wt.):	Not determined Not applicable

Other:



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10. REACTIVITY

CHEMICAL STABILITY: STABLE UNSTABLE

REACTIVITIES: Reacts with

AIR OXIDIZERS METALS
 WATER OTHER ALKALIS
 HEAT NONE

HAZARDOUS POLYMERIZATION: OCCURS WILL NOT OCCUR

INCOMPATIBLE MATERIALS: Reacts with strong oxidizing agents to form hexavalent chromium compounds.

HAZARDOUS DECOMPOSITION PRODUCTS: Sulfur trioxide, sulfur dioxide, oxygen (above 250 °C).

11. TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS:

ACUTE TOXICITY :

Products/Ingredient name:	TLV-ACGIH	PEL-OSHA	LD 50 Oral
Chromium Hydroxide Sulfate	0.5 mg/m ³ as Cr(III)	0.5 mg/m ³ as Cr(III)	7760mg/kg rat
Sodium Sulfate	10mg/m ³ Inhalable 3mg/m ³ respirable	15mg/m ³ Total dust 5mg/m ³ respirable	5989mg/kg mouse

SKIN CORROSION/IRRITATION : No data available

SERIOUS EYE DAMAGE/EYE IRRITATION : Eyes-rabbit-severe eye irritation.

RESPIRATORY OR SKIN SENSITIZATION: No data available.

GERM CELL MUTAGENICITY : No data available.

CARCINOGENICITY IARC : 3-Group3:Not classifiable as to its carcinogenicity to humans.

REPRODUCTIVE TOXICITY : No data available.

SPECIFIC TARGET ORGAN TOXICITY-SINGLE EXPOSURE : No data available.

SPECIFIC TARGET ORGAN TOXICITY-REPEATED EXPOSURE : No data available.

ASPIRATION HAZARD : No data available.

INFORMATION ON THE

LIKELY ROUTES OF EXPOSURE : Routes of entry anticipated: Inhalation, dermal and oral.

POTENTIAL ACUTE HEALTH EFFECTS:

Eye Contact : Causes serious eye irritation.

Inhalation : May be harmful if inhaled. The materiel is destructive to the tissue of the mucous membranes and upper respiratory tract.



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Skin Contact : May be harmful if absorbed through skin. Causes skin irritation.
Ingestion : May be harmful if swallowed. May cause burn to mouth, throat and Stomach.

ADDITIONAL INFORMATION:

Chromium Hydroxide Sulfate RTECS : GB6240000
Sodium Sulfate RTECS : WS87500

12. ECOLOGICAL INFORMATION

TOXICITY : No data available. This material is believed to be moderately toxic to aquatic life.
PERSISTENCE AND DEGRADABILITY : No data available. This material is believed to be unlikely to persist in the environment.
BIOACCUMULATIVE POTENTIAL : No data available. This material is believed to be unlikely to bio-accumulate.
MOBILITY IN SOIL : No data available.
RESULTS OF PBT AND VPVB ASSESSMENT : No data available.
OTHER ADVERSE EFFECTS : No data available. No known significant effects or critical hazards.

13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHOD: Dispose of all waste and contaminated packaging in accordance with all applicable health and environmental regulations and via a licensed waste disposal contractor.

14. TRANSPORTATION INFORMATION

UN NUMBER : Not listed, not regulated as packaged.
UN PROPER SHIPPING NAME:
Transport Hazard Class : ADR/RID :NO IMDG : NO IATA : NO
Package Group : ADR/RID :NO IMDG : NO IATA : NO
Environmental Hazard: ADR/RID :NO IMDG Marine Pollutant : NO IATA : NO
SPECIAL PRECAUTIONS FOR USER : No data available.
OTHER INFORMATION : Not dangerous cargo. Keep separated from foodstuffs.

15. REGULATORY INFORMATION

This safety datasheet compiles with the requirements of Regulation (EC) No.1907/2006 (REACH),(EC) No.1272/2008(CLP) and GHS-SDS requirements.

SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/REGISTRATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE :

No data available.

CHEMICAL SAFETY ASSESSMENT :

No data available.

U. S. FEDERAL REGULATIONS:

OSHA Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, material safety data sheets, training and access to written records. We request that you and it is your legal duty to, make all information in this Material Safety Data Sheet available to your employees.

TSCA:

All components of this product that are required to be on the TSCA inventory are listed on the inventory.



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SARA / TITLE III HAZARD CATEGORIES:

If the word "YES" appears next to any category, this product may be reportable by you under the requirements of 40 CFR 370. Please consult those regulations for details.

Immediate (Acute) Health: YES

Reactive Hazard: NO

Delayed (Chronic) Health: YES

Sudden Release of Pressure: NO

Fire Hazard: NO

HMIS Hazard Ratings:

HEALTH HAZARD: 1

FIRE HAZARD: 0

REACTIVITY: 0

INTERNATIONAL REGULATIONS:

Consult the regulations of the importing country.

CANADA:

WHMIS Hazard Class: D2B

16. OTHER INFORMATION

For additional non-emergency health, safety or environmental information telephone (662) 709-3840-2 or write to:

Diachrome Chemicals Limited

386 Bangpoo Industrial Estate Soi 6, Pattana 3 Road, Amphur Muang, Samutprakarn, 10280 Thailand

MSDS LEGEND:

ACGIH = American Conference of Governmental Industrial Hygienists

CAS = Chemical Abstracts Service Registry Number

CEILING = Ceiling Limit (15 Minutes)

CEL = Corporate Exposure Limit

PEL = Permissible Exposure Limit (OSHA)

STEL = Short Term Exposure Limit (15 Minutes)

TDG = Transportation of Dangerous goods (Canada)

TLV = Threshold limit Value (ACGIH)

TWA = Time Weighted Average (8 Hours)

WHMIS = Workplace Hazardous Materials Information system (Canada)

IMPORTANT: The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE, OR OF ANY OTHER KIND, EXPRESS OR IMPLIED, IS MADE REGARDING PERFORMANCE, STABILITY, OR OTHERWISE. This information is not intended to be all-inclusive as to the manner and conditions of use, handling and storage. Other factors may involve other or additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the customer. No suggestions for use are intended as, and nothing herein shall be construed as a recommendation to infringe any existing patents or violate any federal state or local laws, rules, regulations or ordinances.