

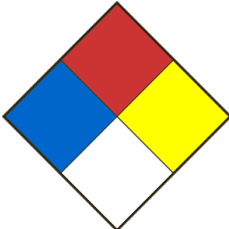


SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier GRAFF DYE "C" (SOLUTION A)		Product Use Laboratory use	
Chemical formula AlCl ₃ .6H ₂ O		Product code GF-0001	Molar weight 241,43
Chemical name / Commercial name / Synonymous -			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
City Québec		Province Québec	
Postal code G1C 7B7	Internet www.labmat.com	Phone number 418-660-8666 Lun-Ven 8h-16h	
Emergency phone	418-660-8666 Lun-Ven 8h-16h CENTRE ANTI-POISON DU QUÉBEC 800-463-5060		
Date SDS 4/2/2024	SDS Prepared by Laboratoire MAT		E-Mail labmat@labmat.com

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Skin corrosion/irritation - Skin irritation category 2 Serious eye damage/ Eye irritation category 2A Specific target organ toxicity - Single exposure category 3	
Signal Word	WARNING	
Hazards statements (H)	H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.	
Precautionary statements (P)	P261 Avoid breathing dust / fume / gas / mist / vapors / spray. P264 Wash the areas of the body that have been in contact with the product after handling. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P321 Specific treatment (see section 4 of the SDS and on this label). P332 + P313 If skin irritation occurs: Get medical advice/attention. P337 + P313 If eye irritation persists: Get medical advice/attention. P362 + P364 Take off contaminated clothing and wash it before reuse. P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P501 Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.	
PICTOGRAMS		
Other dangers	NFA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme)	
	Health 1 Fire 0 Reactivity 0 Special danger	

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%P/P)
Chlorure d'aluminium (hexahydrate)	7784-13-6	29

SECTION 04 - FIRST AID MEASURES

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
Skin contact	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
Inhalation	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	If the person is conscious, give water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Main symptoms of high exposure: Skin, eye and respiratory system irritation. Skin sensitizer. Lungs damage. Ref. section 11.
Immediate medical attention and special treatment, if necessary	In case of medical consultation, keep this sheet available.
General advice	Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	No
Suitable extinguishing media	Dry powder or dry sand.
Unsuitable extinguishing media	Do not use water.
Hazardous combustion products	Hazardous combustion products formed under fire conditions: Hydrogen chloride gas. Aluminium oxides.
Specific hazards of the dangerous product	Anhydrous aluminum chloride exhibits a violent exothermic reaction on contact with water and releases sufficient heat to ignite combustible materials. In addition, water hydrolyzes anhydrous aluminum chloride and releases an acid gas which, on contact with metal surfaces, can generate hydrogen, a flammable and potentially explosive gas. The presence of humidity in a closed container or a surrounding heat source can lead to spontaneous decomposition of the product and occasionally an explosion due to the internal pressure generated by the presence of hydrogen chloride. May react violently with incompatible products (Ref Section 10).
Special protective equipment and precautions for firefighters	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up / Personnel precautions, protective equipment	Evacuate personnel to safe areas. Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. Ensure a good ventilation of the premises. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Use breathing apparatus if necessary. Avoid breathing vapors, mist or gas. Do not let product enter drains.
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SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Deliquescent. Reacts violently with water. Store in a cool, dry place. Keep container tightly closed and store away from heat, air, moisture and incompatible products. Keep container tightly closed in a dry and well-ventilated place. Store under inert gas. Air and moisture sensitive.
Methods of handling	Ensure good ventilation. Avoid ingestion and inhalation. Avoid contact with the skin, eyes and clothes. Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14)

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Component	No.-CAS	Control parameters	Value	Basis
Aluminium chloride hexahydrate	7784-13-6	TWA	2.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required			
		TWAEV	2.000000 mg/m3	Quebec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	2 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required			
		VTWAEV	2 mg/m3	Quebec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

Data source	Sigma-Aldrich (Millipore Sigma)
Ventilation	Use fan.
Respiratory	If work under the hood is not possible, or if the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Shoes	Safety shoes.
Clothing	Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Engineering control	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid.
Appearance	Liquide clair.
Odour	inodore.
Odour threshold	Data not available
pH	Donnée non disponible.
Melting point / Freezing point	Data not available
Initial boiling point	Data not available
Boiling range	Data not available
Flash point	Data not available
Evaporation rate	Data not available
Flammability	No
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	Data not available
Solubility	Soluble dans l'eau et l'alcool. et la glycérine.
Vapour density	Data not available
Relative density	Data not available
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	Material may react violently with water.
Chemical stability	Moisture sensitive. Reacts with water.
Possibility of hazardous reactions	Reacts violently with water.
Conditions to avoid, including static discharge, shock or vibration	This product quickly absorbs moisture from the air.
Incompatible materials	Water, moisture, alcohols, alkenes, phenyl azide, sodium borohydride, oxygen difluoride, nitrobenzene, nitromethane, ethylene oxide and perchloryl benzene. Strong oxidizing agents, metals. Strong bases.
Hazardous decomposition products	Hydrogen chloride gas. Aluminium oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

ALUMINUM CHLORIDE (HEXAHYDRATE)

Routes of exposure	Ingestion and inhalation.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Severe irritation and burns which may cause permanent eye damage.
- Skin	Irritation and tissue burns. May cause an allergic skin reaction.
- Inhalation	Spasms, irritation and inflammation of the nose, throat and lungs. Edema of the larynx and bronchi. Chemical pneumonia and pulmonary edema.
Acute toxicity (Ingestion)	Burns and ulcerations of the mouth, throat, esophagus and abdominal wall. Dysphagia, cramps, melena, nausea and vomiting, convulsions, circulatory collapse, unconsciousness, coma and can lead to death.
Chronic exposure effects / symptoms	Burning sensation, skin allergy, nervous disorders, lung damage, chest pain, cough, dyspnoea, laryngitis, dizziness, headache, fatigue, loss of appetite, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 3,311 mg/kg. LD50 Dermal: Data not available.
CL50 (specify species and route of entry)	LC50 - Inhalation - Data not available.

SUMMARY

Acute exposure effects / Symptoms:	By exposure routes below.
Ingestion	To our knowledge, the product has not been fully evaluated
Inhalation	To our knowledge, the product has not been fully evaluated
Skin	To our knowledge, the product has not been fully evaluated
Eyes	To our knowledge, the product has not been fully evaluated
Chronic exposure effects / Symptoms:	To our knowledge, the product has not been fully evaluated
ETA Mix (Estimated Acute Toxicity)	LD50 Oral: 11 550 mg/kg - Rat LD50 Dermal: No data available LC50 Inhalation: No data available

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Aluminium chloride (hexahydrate): Toxicity to fish: LC50 - Gambusia affinis (Mosquito fish) - 27 mg/L - 96h. Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 27.3 mg/l - 48 h.
Persistence and degradability	Persistence is unlikely based on information available.
Bioaccumulative potential	Data not available.
Mobility in soil	Data not available.
Other adverse effects	Toxic to aquatic life. Do not throw residues in the sewer.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents and container in accordance with local, regional and national regulations, or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	N/R
UN Proper shipping name	
Transport hazard class(es)	
Packing group	
Limited quantity index	
ERAP Index	
Special precautions	

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Skin corrosion/irritation - Skin irritation category 2 Serious eye damage/ Eye irritation category 2A Specific target organ toxicity - Single exposure category 3
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SECTION 16 - OTHER INFORMATION

Further information

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

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