

## HALLCOAT T100

Revised: 10/2/17

### 1 IDENTIFICATION

**Product Name:** HALLCOAT T100

**Product Code :**2422001

**Recommended use of the chemical and restrictions on use:**Industrial applications

#### Hubbard-Hall Inc.

563 South Leonard Street

Waterbury, CT 06708

**Telephone:** 203-756-5521

**Fax number:** 203-756-9017

Emergency Phone Number

**CHEMTREC:** 1 (800) 424-9300

**International:** 1 (703) 527-3887

### 2 HAZARDS IDENTIFICATION



**Signal Word:** DANGER

**Hazard Category:** Skin Corrosion/Irritation Hazard Category 1A

Corrosive to Metals Hazard Category 1

Carcinogenicity Hazard Category 1B

Specific Target Organ Toxicity (Repeated Exposure) Hazard Category 1

Eye Damage/Irritation Hazard Category 1

Acute Toxicity-Inhalation Hazard Category 3

**Hazard Statements:** Toxic if inhaled.

May cause damage to lungs and teeth through inhalation.

Causes severe skin burns and eye damage.

May be corrosive to metals.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause cancer if ingested.

**Prevention:** Do not breathe dust, fumes, gas, mist, vapors or spray.

Use only outdoors or in well ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

Wash skin thoroughly after handling.

Wear protective gloves, chemical protective clothing, eye protective goggles and face shield for face protection.

Keep only in original container.

Do not eat, drink or smoke when using this product.

Wear respiratory protection.

Obtain special instruction before use.

Do not handle until all safety precautions have been read and understood.

**Response:** If inhaled: Remove person to fresh air and keep comfortable for breathing.

If swallowed: Immediately call poison center or doctor. Rinse mouth

If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing Rinse skin with water/shower .

If skin irritation or rash occurs, get medical advice/attention.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Absorb spillage to prevent material damage .

Take off immediately all contaminated clothing and wash it before reuse.

Collect spillage

If exposed or concerned: Get medical advice/attention.

**Storage:** Store locked up.

Store in well ventilated place. Keep container tightly closed.

Store in corrosive resistant high density polyethylene container.

**Disposal:** Dispose of contents/container in accordance with local, regional, national, or international regulations.

### 3 COMPOSITION INFORMATION

Chemical Name	Common Name And Synonyms	CAS No. and other Unique identifiers	Concentration %
Trivalent Chromium compound	-	13548-38-4	1-8%
Ammonium Bifluoride	Ammonium hydrogen difluoride	1341-49-7	1-5%
Sodium Nitrate	-	7631-99-4	10-18%
Citric Acid	-	77-92-9	5-7%
Cobalt Sulfate	-	10026-24-1	0.1-0.97%

### 4 FIRST AID

#### After Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

#### After Skin Contact:

Immediately remove contaminated clothing under a safety shower. Flush all affected areas with large amounts of water for 15 minutes. DO NOT attempt to neutralize with chemical agents. Obtain medical advice.

Quickly remove contaminated clothing. Rinse with flooding amounts of water for at least 15 minutes. After rinsing, massage in a 2.5% calcium gluconate gel until pain is relieved. If pain persists, calcium gluconate injections may be necessary. Consult a physician.

#### After Eye Contact:

Immediately flush the eyes with large quantities of running water for 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eyelids with water. DO NOT attempt to neutralize with chemical agents. Obtain medical attention as soon as possible. Oils or ointments should not be used. Continue rinsing for an additional 15 minutes if the physician is not available.

#### After Ingestion:

If swallowed: Rinse mouth. Do NOT induce vomiting.

Immediately call poison center or doctor and explain the type of exposure to the chemical(s) and provide the name of the chemical(s).

## Most Important Symptoms/Effects

### Inhalation:

Effects may be delayed. Causes chemical burns to the respiratory tract. Inhalation may be fatal as a result of a spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Aspiration may lead to pulmonary edema. May cause systemic effects. May cause acute pulmonary edema, asphyxia, chemical pneumonitis and upper airway obstruction caused by edema. Depending on the conditions, the vapors of fumes of nitric acid may actually be a mixture of nitric acid and various oxides of nitrogen. The composition may vary with temperature, humidity, and contact with other organic materials.

### Eye:

Eye contact can result in corneal damage or blindness. Inflammation of the eye is characterized by redness, watering, and itching.

### Skin:

Causes severe skin burns. Causes irritation, pain, redness and blisters. May cause deep penetrating ulcers of the skin. Concentrated Nitric Acid turns human skin yellow on contact.

### Special Precautions / Procedures:

Persons with pre-existing skin disorders, asthma, allergies or known sensitization to chromic acid or chromates may be more susceptible to the effects of this material.

## 5 FIRE FIGHTING MEASURES

<b>Suitable and Unsuitable extinguishing media:</b>	Avoid contact with water. Use foam, dry chemical or carbon dioxide.
<b>Specific hazards arising from the chemical:</b>	Nitrogen oxides may be produced.  Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition. Will ignite on contact with acetic acid and alcohol. Releases oxygen upon decomposition, increasing the fire hazard. Contact with oxidizable substances may cause violent combustion. Containers may explode when involved in a fire.
<b>Special protective equipment and precautions for firefighter</b>	Fire fighters should enter area only if they are protected from all contact with the material. Full protective clothing, including self-contained breathing apparatus, coat, pants, gloves, boots and bands around legs, arms, and waist, should be worn. No skin surfaces should be exposed.

## 6 ACCIDENTAL RELEASE MEASURES

<b>Methods and Materials for containment &amp; cleaning up:</b>	If trained in accordance 29 CFR 1910.120, leaks should be stopped. Spills should be contained and cleaned immediately. Persons performing clean up work should wear adequate personal protective equipment and clothing. Spills and releases should be reported, if required, to the appropriate local, state and federal regulatory agencies.  If trained according to OSHA 29 CFR 1910.120 contain the spill, clean it up and decontaminate the area.  Avoid release to the environment.
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## 7 HANDLING AND STORAGE

<b>Precautions for safe handling:</b>	Use ventilation sufficient to keep personal exposure below the OSHA Permissible Exposure Limits (PEL) and or the ACGIH Threshold Limit Value (TLV) Time Weighted Average (TWA) exposure limits.  Wear rubber protective gloves, chemical protective clothing, eye protective goggles and face shield for face protection.  Avoid breathing dust, fumes, gas, mist, vapors and sprays.  Eating, drinking and smoking in the work area is prohibited.  Do not get in eyes, or on skin, or on clothing.
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Keep only in original container .  
 Keep container tightly closed.  
 Store in corrosive resistant container.  
 Store locked up and away from incompatible chemicals.  
 Store in cool dry place.

**Conditions for safe storage,  
inc any incompatibilities:**

**8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

Name	Std.	TWA-8hrs	STEL - 15 min.
Trivalent Chromium compound	ACGIH	0.05 mg/m3	-
Ammonium Bifluoride	ACGIH	2.5 mg/m3 (F)	-
Sodium Nitrate	Not established		
Citric Acid	Not established		
Cobalt Sulfate	ACGIH	0.02 mg/m3	

ACGIH - American Control of Governmental Hygenists  
 OSHA - Occupational Safety and Health Administration

**Ventilation:** Use local exhaust to keep personal exposures below the OSHA Permissible Exposure Limit (s) (PEL) or the ACGIH threshold Limit Values (TLV)Time Weight Average (TWA).

**Respiratory Protection:** A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI 788.2 or applicable federal requirements must be followed whenever work place conditions warrant respirator use. NIOSH's Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

**Protective Gloves:** Acid resistant rubber.

**Eye Protection:** Wear chemical safety goggles with face shield.

**Other Protective Equipment:** Rubber aprons, safety shoes and similar protective clothing.

**9 PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance:** Clear green colored liquid

**Odor:** Irritating odor.

**Odor Threshold:** N/A

**PH:** <2

**Melting Point/Freezing Point:** N/A

**Initial Boiling Point and Boiling Range:** N/A

**Flash Point:** N/A

**Evaporation Rate:** N/A

**Flammability (solid, gas):** N/A

**Upper/Lower flammability or explosive limits:** N/A

**Vapor Pressure:** N/A

**Vapor Density:** N/A

**Relative Density:** 1.36

**Solubility (ies):** Complete in water

Partition Coefficient; n-octanol/water:	N/A
Auto-ignition Temperature:	N/A
Decomposition Temperature:	N/A
Viscosity:	40 °C 3 cP

## 10 STABILITY AND REACTIVITY

Reactivity:	Reacts violently with water, organic substances and base solutions with evolution of heat and hazardous mists.
Chemical Stability:	Stable under normal conditions
Conditions to Avoid:	Extremely high temperatures
Incompatible Materials:	Any combustible, organic or other readily oxidizable material (paper, wood, sulfur, aluminum or plastics). Incompatible with arsenic, ammonia gas, hydrogen sulfide, phosphorous potassium; sodium and selenium will produce incandescence. Corrosive to metals.
Hazardous Decomposition Products:	Burning may produce chromic oxides.

## 11 TOXICOLOGICAL INFORMATION

Oral Administration:	Sodium Bifluoride-LD50(Rat)-80 mg/kg
Oral Administration:	Sodium Nitrate-LC50 (rat)-1267 mg/kg ,LD50(rabbit)-2680 mg/kg
Oral Administration:	Trivalent chromium-LD50(Rat)-7760 mg/kg
Oral Administration:	LD50, rat, 60 - 130 mg/kg (Ammonium Fluoride)
Oral Administration:	Cobalt Sulfate-LD50(Rat)-528 mg/kg
Inhalation:	Not established for this product
Dermal administration:	Not established for this product
Immediate effects:	Severe irritation or burns to skin, eyes and respiratory system
Long term exposure:	Bifluorides-chronic exposure at high concentrations can cause bone fluorosis.
Cancer Hazard:	Trivalent Chromium-IARC Group 3-Not classifiable as to its carcinogenicity to humans.
Cancer Hazard:	Cobalt Sulfate-IARC Group 2B
Cancer Hazard:	Sodium Nitrate-IARC-2A-if ingested
Routes of Exposure	Eyes, Skin, Inhalation, Ingestion

## 12 ECOLOGICAL INFORMATION

Persistence and Degradability:	Not Available
Bioaccumulation potential:	Unlikely
Water result:	Disperses in water.
Soil/Sediment Result:	No data available

## 13 DISPOSAL CONSIDERATION

*Dispose of in accordance with local, state and federal regulations.*

## 14 TRANSPORT INFORMATION

UN Number:	3264
UN Proper Shipping Name:	CORROSIVE LIQUID,ACIDIC,INORGANIC,NOS(TRIVALENT CHROMIUM COMPOUND,AMMONIUM BIFLUORIDE)
Transport Hazard Class (es):	8
Packing Group:	II
ERG:	154

## 15 REGULATORY INFORMATION

HMIS: Health: 3 Flammability: 0 Reactivity: 1

**Sara Hazard Classification** SARA Title III Section 311 Categories: Immediate (Acute) Health Effects: Yes, Delayed (Chronic) Health Effects: Yes, Fire Hazard: No, Sudden Release of Pressure Hazard: No, Reactivity Hazard: No

**Sara Hazard Classification** Chromium Compounds-SARA 313 listed

**Sara Hazard Classification** Nitrate compounds, water dissociable-SARA 313 listed

**Sara Hazard Classification** Cobalt Compounds-SARA 313 listed

**Sara Hazard Classification** Cobalt Sulfate-listed

## 16 OTHER INFORMATION

**Disclaimer:** The information is based on our knowledge to date but does not constitute an assurance of product properties and does not imply a legal contractual relationship.

**Date Prepared:** 9/29/14