1. Product and Company Identification

Trade Name:	Cobalt Nitrate Hexahydrate
Chemical Formula:	$Co(NO_3)_2•6H_2O$
Recommended Use:	Scientific research and development
Manufacturer/Supplier:	LTS Research Laboratories, Inc.
Street:	37 Ramland Road
City:	Orangeburg
State:	New York
Zip Code:	10962
Country:	USA
Tel #:	855-587-2436 / 855-lts-chem
24-Hour Emergency Contact:	800-424-9300 (US & Canada) +1-703-527-3887 (International)

2. Hazards Identification

Signal Word: Danger

Hazard Statements:
H272: May intensify fire; oxidizer
H302: Harmful if swallowed
H317: May cause an allergic skin reaction
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
H341: Suspected of causing genetic defects
H350: May cause cancer
H360: May damage fertility or the unborn child

Precautionary Statements:
P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking
P221: Take any precaution to avoid mixing with combustibles
P284: Wear respiratory protection
P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
P405: Store locked up
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):

Health:	2
Flammability:	0
Physical:	2

3. Composition

Chemical Family:	Salt
Additional Names:	Cobalt (II) nitrate hexahydrate, Cobalt nitrate hydrate

Cobalt Nitrate Hexahydrate ($Co(NO_3)_2 \cdot 6H_2O$):

Percentage:	100 wt%
CAS #:	10026-22-9
EC #:	233-402-1

4. First Aid Procedures

General Treatment:	Seek medical attention if symptoms persist.
Special Treatment:	None
Important Symptoms:	None
Inhalation:	Remove victim to fresh air. Supply oxygen if breathing is difficult.
Ingestion:	Give one to two glasses of water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person.
Skin:	Wash affected area with mild soap and water. Remove any contaminated clothing.
Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

5. Firefighting Measures

Flammability:	Flammable
Extinguishing Media:	Use Carbon dioxide, extinguishing powder, or water spray. Fight larger fires with water spray or alcohol resistant foam. Do not use a halocarbon extinguisher
Spec. Fire Fighting Procedure:	Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

6. Accidental Release Measures

If Material Is Released/Spilled:	Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust. Acts as an oxidizing agent on organic materials such as wood, paper, and fats. Keep away from combustible material.
Environmental Precautions:	Isolate runoff to prevent environmental pollution. Do not allow product to reach sewage system or any water course

7. Handling and Storage

Handling Conditions:	Open and handle container with care. Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in section 10. Substance/product can reduce the ignition temperature of flammable substances. This substance is an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.
Work/Hygienic Maintenance:	Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air. Store away from flammable substances. Store away from reducing agents. Do not store with organic materials. Store away from metal powders.
Ventilation:	Provide sufficient ventilation to maintain concentration at or below threshold limit.

8. Exposure Controls and Personal Protection

Permissible Exposure Limits:	0.1 mg/m^3 as Co, long-term value
Threshold Limit Value:	0.02 mg/m^3 as Co, long-term value
Special Equipment:	None
Respiratory Protection:	Dust Respirator
Protective Gloves:	Rubber gloves
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color	Red
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	1338 g/l
Boiling Point:	N/A
Melting Point:	56 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	1.87 g/cc (at 20 °C)
Molecular weight:	290.93 g/mol

10. Reactivity

Stability:	May intensify fire; oxidizer. Stable under recommended conditions.
Reacts With:	Reducing Agents, Flammable substances
Incompatible Conditions:	Flammable substances Reducing agents Organic materials Metal Powders
Hazardous Decomposition Products:	Metal oxide fume Nitrogen Oxides (NO_x) Cobalt Oxides

11. Toxicological Information

Potential Health Effects:

Eyes:	May cause irritation
Skin:	May cause an allergic skin reaction.
Ingestion:	N/A
Inhalation:	May cause allergy or asthma symptoms or breathing difficulties.
Chronic:	N/A

Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	691 mg/kg through oral route (rat)
Carcinogen:	May cause cancer. IARC-2B: Possibly carcinogenic to humans: limited evidence in human in the absence of sufficient evidence in experimental animals. ACGIH A3: Animal carcinogen: Agent is carcinogenic in experimental animals at a relatively high dose, by routes of administration, at sites, of histologic types, or by mechanisms not considered relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence suggests that the agent is not likely to cause cancer in humans except under uncommon or unlikely routes or level of exposure.
Reproductive Toxicity:	May damage fertility or the unborn child

12. Ecological Information

Aquatic Toxicity:	Very toxic for aquatic organisms
Persistent Bioaccumulation Toxicity:	No
Very Persistent, Very Bioaccumulative:	No
Notes:	Do not allow product to reach ground water, water course, or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into the ground. Also poisonous for fish and plankton in water bodies. May cause long lasting harmful effects to aquatic life. Avoid transfer into the environment. Very toxic for aquatic organisms.

13. Disposal Considerations

Dispose of in accordance with local, state, national, and international regulations.

14. Transportation Data

Hazardous: Hazardous for transportation.

Hazard Class:	5.1 Oxidizing substances.
Packing Group:	III
UN Number:	UN 1477
Proper Shipping Name:	NITRATES, INORGANIC, N.O.S (Cobalt nitrate hexahydrate)

15. Regulatory Information

Sec 302 Extremely Hazardous:	N/A
Sec 304 Reportable Quantities:	N/A
Sec 313 Toxic Chemicals:	Yes

16. Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

Document Last Revised: 07/11/2017