

# **SAFETY DATA SHEET**

Preparation Date: 3/23/2017 Revision Date: 3/23/2017 Revision Number: G1

## 1. IDENTIFICATION

Product identifier

Product code: U1010

Product Name: URANYL NITRATE, HEXAHYDRATE, CRYSTAL, REAGENT, ACS

Other means of identification

**Synonyms:** Dinitratodioxouranium hexahydrate

Uranium, bis(nitrato-O)dioxo-, hexahydrate (T-4)- (9CI)

Uranium, dinitratodioxo-, hexahydrate

Uranyl dinitrate hexahydrate

CAS #: 13520-83-7
RTECS # YR3850000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use:
Uses advised against

No information available.
No information available

**Supplier:** United Nuclear Scientific

125 N. 8th Street

Klamath Falls, OR 97601

(541) 205-6855

<u>Emergency telephone number</u> VelocityEHS (USA) 1-800-255-3924

## 2. HAZARDS IDENTIFICATION

## Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Oxidizing solids	Category 2

#### Label elements

Danger

Hazard statements
Toxic if swallowed
Toxic if inhaled

May cause damage to organs through prolonged or repeated exposure May intensify fire; oxidizer



## Hazards not otherwise classified (HNOC)

Not Applicable

## Other hazards

Radioactive

Toxic to aquatic life with long lasting effects

## **Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Keep away from heat

Use only outdoors or in a well-ventilated area Do not breathe dust/fume/gas/mist/vapors/spray

Keep/Store away from clothing and other combustible materials

Take any precaution to avoid mixing with combustibles

Wear eye/face protection

Wear protective gloves

# **Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor/physician

IN CASE OF FIRE: Use water to extinguish. Do not use dry chemicals or foams. CO 2 or Halon may provide limited control.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Rinse mouth

#### **Precautionary Statements - Storage**

Store locked up

Store in a well-ventilated place. Keep container tightly closed

## **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Uranyl Nitrate, Hexahydrate	13520-83-7	100

## 4. FIRST AID MEASURES

#### First aid measures

General Advice: National Capital Poison Center in the United States can provide assistance if you

have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. First aider needs to protect himself. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect

themselves.

Product code: U1010 Product name: URANYL NITRATE, HEXAHYDRATE, CRYSTAL, REAGENT. ACS

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothing and

shoes. Get medical attention. If skin irritation persists, call a physician.

**Eye Contact:** Flush eyes with water for 15 minutes. Get medical attention.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give

oxygen. WARNING! It may be hazardous to the person providing aid to give

mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention.

**Ingestion:** Toxic if swallowed. Do not induce vomiting without medical advice. Never give anything by

mouth to an unconscious person. Consult a physician if necessary. Obtain medical

attention.

## Most important symptoms and effects, both acute and delayed

**Symptoms** Ingestion may cause gastrointestinal irritation, nausea, vomiting, and diarrhea. Burning

sensation in the mouth and stomach. Sweating and flushing of skin. Dyspnea (Shortness of breath and difficulty breathing). May cause pulmonary edema. May cause muscle weakness. Dizziness. Exposure to nitrites/nitrates can cause gastroenteritis, abdominal pain, nausea, vomiting, diarrhea, metabolic acidosis, purging, methemoglobinemia, cyanosis, muscle weakness, dizziness, lightheadedness, loss of coordination, fatigue, headache, seizures, convulsions, dyspnea, dysrhythmias, coma, and death. Can affect the liver, metabolism(weight loss), blood (methemoglobinemia), cardiovascular system

liver, metabolism(weight loss), blood (methemoglobinemia), cardiovascular system (bradycardia/tachydardia, hypotension, vasodilation, irregular heartbeat), kidneys.

#### Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically.

## **Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

## 5. FIRE-FIGHTING MEASURES

**Extinguishing Media** 

Product code: U1010

Suitable Extinguishing Media: Water. CO2 may be of no value in extinguishing fires

involving oxidizers and may only provide limited control.

Unsuitable Extinguishing Media: Dry chemical. Foam. Halons.

Specific hazards arising from the chemical

**Hazardous Combustion Products:**No information available.

**Specific hazards:** Oxidizer. Keep away from combustible materials (wood,

paper, oil, clothing, etc.). The product is not flammable, but it may cause fire when in contact with other material. Contact with combustible or organic materials may cause fire. Will accelerate burning when involved in a fire. Container explosion may occur under fire conditions or

when heated.

**Special Protective Actions for Firefighters** 

Product name: URANYL NITRATE, HEXAHYDRATE, CRYSTAL, REAGENT, ACS **Specific Methods:** For large fires, flood fire area with water from a distance.

Cool affected containers with flooding quantities of water.

Do not get water inside containers. DO NOT use

combustible materials such as sawdust.

**Special Protective Equipment for Firefighters:** 

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent)

and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

## Personal precautions, protective equipment and emergency procedures

Personal Precautions: Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Do not touch

damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Remove all sources of ignition. Keep combustibles (wood, paper, oil, clothing,

etc.) away from spilled material.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Prevent entry into waterways, sewers.

## Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent

spreading.

**Methods for cleaning up**Sweep up and shovel into suitable containers for disposal. Do not use combustible

materials such as paper towels, sawdust, clothing, etc. to clean up spill. Clean

contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

## Precautions for safe handling

## **Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

#### Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from combustible material. Do not breathe dust. Do not ingest. Handle in accordance with good industrial hygiene and safety practice.

#### Conditions for safe storage, including any incompatibilities

## **Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store in a segregated and approved area. Do not store near combustible materials. Store away from incompatible materials.

## **Incompatible Materials:**

Combustible materials Organic materials Reducing agents

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

## National occupational exposure limits

#### **United States**

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WHEEL
Uranyl Nitrate,	13520-83-7	0.05 mg/m <sup>3</sup> TWA (as	0.05 mg/m3 TWA (as	0.2 mg/m3 TWA(as U)	None
Hexahydrate		U)	U)	0.6 mg/m <sup>3</sup> STEL	

#### Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Uranyl Nitrate, Hexahvdrate	13520-83-7	0.2 mg/m³ TWA(as U) 0.6 mg/m³ STEL	0.05 mg/m³ TWA (as	0.2 mg/m³ TWA(as U) 0.6 mg/m³ STEL	0.05 mg/m³ TWAEV (as U)

## **Australia and Mexico**

Components	CAS-No.	Australia	Mexico
Uranyl Nitrate, Hexahydrate	13520-83-7	None	None

## **Appropriate engineering controls**

Engineering measures to reduce exposure:

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

## Individual protection measures, such as personal protective equipment

## **Personal Protective Equipment**

**Eye protection:** Goggles

Skin and body protection: Boots

Gloves

Periodic changes of gloves are recommended. The greater the potential hazard, the more frequent change of gloves is needed. Gloves should not be used to handle radioactive materials directly. When the gloves are no longer needed, they should be carefully removed, monitored and disposed or stored appropriately. Gloves should be monitored frequently. Don't use contaminated gloves or gloves that may be contaminated. If you are wearing gloves and they are exposed to radionuclides that emit penetrating radiation, remove the gloves as quickly as

possible.

Disposable or cloth lab coat. Cloth lab coats may be reused if they are free from contamination and in good condition. Lab coats should be stored in a controlled area and should be monitored both during operations and after removing them. Particular attention should be paid to the sleeves, pockets, and lower front

surfaces of the coat

**Respiratory protection:** Wear respirator with dust filter. Be sure to use an approved/certified respirator or

equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and

Product code: U1010 Product name: URANYL NITRATE, HEXAHYDRATE, CRYSTAL, REAGENT. ACS

immediately after handling the product. When using, do not eat, drink or smoke.

**Lower Explosion Limit (%):** 

No information available

No information available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Appearance: Color: Solid Crystalline. Crystals. Yellow.

Odor: Formula: **Taste** 

Odorless. No information available. UO2(NO3)2.6H2O

Molecular/Formula weight: Flammability: Flashpoint (°C/°F): 502.13 g/mol No information available No information available.

Flash Point Tested according to: Autoignition Temperature (°C/°F):

No information available Not available

**Upper Explosion Limit (%):** Melting point/range(°C/°F): Decomposition temperature(°C/°F):

No information available 60 °C/140 °F

Boiling point/range(°C/°F): **Bulk density:** Density (g/cm3):

No information available No information available No information available

Vapor pressure @ 20°C (kPa): Specific gravity: :Ha

2.81 No information available No information available

VOC content (g/L): **Evaporation rate:** Vapor density: No information available No information available No information available

Odor threshold (ppm): Partition coefficient Viscosity:

No information available (n-octanol/water): No information available No information available

Solubility:

No information available Soluble in mineral acids

Soluble in Alkalis Soluble in Ethanol Soluble in Ether Soluble in Water

Solubility in Water: 127 g/100 g @ 25

deg. C

## 10. STABILITY AND REACTIVITY

Reactivity

Miscibility:

Reacts with reducing agents

Contact with combustible materials (wood, paper, oil, clothing, etc.) may cause fire

It may be a fire risk in contact with organic materials

**Chemical stability** 

Stable under recommended storage conditions. Stability:

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Heat. Ignition sources. Avoid dust formation. Contact with combustible materials Conditions to avoid:

(wood, paper, oil, clothing, etc.). Incompatible materials.

**Incompatible Materials:** Combustible materials

Organic materials

Product code: U1010 Product name: URANYL NITRATE, 6/13

> HEXAHYDRATE, CRYSTAL, REAGENT, ACS

Reducing agents

Hazardous decomposition

products:

When heated to decomposition it emits toxic fumes. Nitrogen oxides (NOx).

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

## 11. TOXICOLOGICAL INFORMATION

## Information on likely routes of exposure

#### **Principal Routes of Exposure:**

Ingestion. Inhalation.

#### **Acute Toxicity**

# The following values are calculated based on chapter 3.1 of the GHS document Component Information

Uranyl Nitrate, Hexahydrate	
CAS-No.	13520-83-7

LD50/oral/rat = No information available

**LD50/oral/mouse** = No information available

**LD50/dermal/rabbit** = No information available

**LD50/dermal/rat** = No information available

**LC50/inhalation/rat** = No information available

LC50/inhalation/mouse = No infomation available

Other LD50 or LC50information = >500 mg/kg oral LD (Lethal Dose) Rat (for Uranyl nitrate, anhydrous CAS number 10102-06-4)

238 mg/kg oral LDL Cat (for uranyl nitrate hexahydrate)

12 mg/kg oral LDL Dog (for uranyl nitrate, hexahydrate)

## **Product Information**

LD50/oral/rat =

**VALUE-** Acute Tox Oral = No information available

LD50/oral/mouse =

Value - Acute Tox Oral = No information available

LD50/dermal/rabbit

VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat

**VALUE -Acute Tox Dermal =** No information available

LC50/inhalation/rat

**VALUE-Vapor** = No information available

**VALUE-Gas** = No information available

**VALUE-Dust/Mist** = No information available

LC50/Inhalation/mouse

Product code: U1010

Product name: URANYL NITRATE, HEXAHYDRATE, CRYSTAL, REAGENT, ACS VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

**Symptoms** 

**Skin Contact:** May cause skin irritation.

**Eye Contact:** May cause eye irritation. May cause conjunctivitis.

**Inhalation** Toxic by inhalation. May cause irritation of respiratory tract. Symptoms may

include burning sensation, coughing, sneezing, difficulty breathing and shortness

of breath. It may cause pulmonary edema.

**Ingestion** Toxic if swallowed. Ingestion may cause nausea, vomiting. May cause diarrhea.

May cause stomach cramping. Symptoms may include a burning sensation in the mouth, and stomach. May cause salivation. May cause flushing and sweating. May cause muscle weakness. May affect liver. May affect urinary system

(kidneys). Ingestion of large doses of nitrates causes gastrointestinal tract irritation with nausea, vomiting, abdominal cramps, diarrhea (possibly bloody, from gastrointestinal hemorrhage). Under some circumstances, when the nitrate is

converted by bacteria in the stomach to nitrite, it may also cause

methemoglobinemia, cyanosis (a bluish discoloration of the skin due to deficient oxygenation of the blood), convulsions and death. Methemoglobinemia is characterized by dizziness, weakness, fatigue, convulsions (seizures), drowsiness, headache, shortness of breath, cyanosis, rapid heart rate (tachycardia) or slow heart rate (bradycardia), hypotension, chocolate brown

colored blood, unconciousness.

**Aspiration hazard** No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Chronic Toxicity** Chronic exposure may affect the liver and kidneys. Prolonged or repeated

ingestion or inhalation may affect the brain (degenerative changes). This product is also a nitrate, therefore nitrate poisoning can occur. Prolonged or repeated nitrate ingestion may affect the urinary system (kidneys) and also may affect the blood, resulting in methemoglobin with attendant cyanosis, anorexia, hyperpnea and later dyspnea and chocolate brown colored blood. The primary toxic effects of nitrates include orthostatic hypotension and methemoglobinemia, Other symptoms include muscular weakness, dizziness, lightheadedness, fatigue, throbbing headache, mental impairment, incoordination, seizures, and convulsions,

ingestion of large amounts of nitrates may affect the liver and can cause gastroenteritis, nausea, vomiting, abdominal pain, weight loss. Possible coma and death. Prolonged or repeated ingestion may affect the bone marrow. Prolonged or

repeated inhalation may affect the bone marrow (changes in bone marrow).

bradycardia or tachydardia, dysrhythmias, dyspnea. Prolonged or repeated

**Sensitization:** No information available.

Mutagenic Effects: Contains a radioactive isotope which may produce genetic mutation

**Carcinogenic effects:** Contains a radioactive isotope which may produce cancer.

Components	CAS-No.	IARC	ACGIH -	NTP	OSHA HCS -	Australia -	Australia -
			Carcinogens		Carcinogens	Notifiable	Prohibited
						Carcinogenic	Carcinogenic

						Substances	Substances
Uranyl Nitrate, Hexahydrate	13520-83-7	Not listed	A1 - Confirmed Human Carcinogen (listed as uranium soluble and insoluble compounds)	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity No data is available

Reproductive Effects:No information availableDevelopmental Effects:No information availableTeratogenic Effects:No information available

**Specific Target Organ Toxicity** 

**STOT - single exposure** No information available.

**STOT - repeated exposure** May cause damage to organs through prolonged or repeated exposure.

Target Organs: Liver. Blood. Respiratory system. Kidneys. Bone Marrow.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity** 

**Ecotoxicity effects:** No data available.

Persistence and degradability: No information available

**Bioaccumulative potential:** No information available.

**Mobility:** No information available.

## 13. DISPOSAL CONSIDERATIONS

## **Disposal Methods**

## Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

## Contaminated packaging:

Product code: U1010

Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Uranyl Nitrate, Hexahydrate	13520-83-7	None	None	None	None

## **14. TRANSPORT INFORMATION**

Product name: URANYL NITRATE, HEXAHYDRATE, CRYSTAL, REAGENT, ACS DOT

**UN-No:** UN1477

**Proper Shipping Name:** Nitrates, inorganic, n.o.s. (uranyl nitrate, hexahydrate)

Hazard Class: 5.1

**Subsidiary Class** 7 (limited quantity radioactive)

Packing group:

**Emergency Response Guide** 140; 162

Number

Marine Pollutant
DOT RQ (lbs):
Special Provisions
Symbol(s):
No data available
No information available
IB8, IP2, IP4, T3, TP33
No information available

**Description:** UN1477, Nitrates, inorganic, n.o.s., 5.1, II

TDG (Canada)

**UN-No:** UN1477

**Proper Shipping Name:** Nitrates, inorganic, n.o.s. (uranyl nitrate, hexahydrate)

Hazard Class: 5.1

**Subsidiary Risk:** 7 (limited quantity radioactive)

Packing Group:

Marine Pollutant No Information available

**Description:** UN1477, Nitrates, inorganic, n.o.s., 5.1, II

**ADR** 

**UN-No:** UN1477

**Proper Shipping Name:** Nitrates, inorganic, n.o.s. (uranyl nitrate, hexahydrate)

Hazard Class: 5.1 Packing Group:

**Subsidiary Risk:** 7 (limited quantity radioactive)

Special Provisions 511

**Description:** UN1477, Nitrates, inorganic, n.o.s., 5.1, II, ENVIRONMENTALLY HAZARDOUS

IMO / IMDG

**UN-No:** UN1477

**Proper Shipping Name:** Nitrates, inorganic, n.o.s. (uranyl nitrate, hexahydrate)

Hazard Class: 5.1

**Subsidiary Risk:** 7 (limited quantity radioactive)

Packing Group:

Marine Pollutant No information available

EMS: F-A

**Description** UN1477, Nitrates, inorganic, n.o.s. (URANYL NITRATE, HEXAHYDRATE), 5.1, II,

Marine pollutant

RID

**UN-No:** UN1477

**Proper Shipping Name:** Nitrates, inorganic, n.o.s. (uranyl nitrate, hexahydrate)

Hazard Class: 5.1

**Subsidiary Risk:** 7 (limited quantity radioactive)

Packing Group: II Special Provisions 511

**Description:** UN1477, Nitrates, inorganic, n.o.s., 5.1, II, ENVIRONMENTALLY HAZARDOUS

**ICAO** 

**UN-No:** UN1477

**Proper Shipping Name:** Nitrates, inorganic, n.o.s. (uranyl nitrate, hexahydrate)

Hazard Class: 5.1

**Subsidiary Risk:** 7 (limited quantity radioactive)

Product code: U1010 Product name: URANYL NITRATE, HEXAHYDRATE, CRYSTAL,

REAGENT, ACS

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Packing Group:

**Description:** UN1477, Nitrates, inorganic, n.o.s., 5.1, II

Special Provisions A3

**IATA** 

**UN-No:** UN1477

**Proper Shipping Name:** Nitrates, inorganic, n.o.s. (uranyl nitrate, hexahydrate)

Hazard Class: 5.1

**Subsidiary Risk:** 7 (limited quantity radioactive)

Packing Group: II ERG Code: 5L

**Special Provisions** No information available

**Description:** UN1477, Nitrates, inorganic, n.o.s., 5.1, II

## 15. REGULATORY INFORMATION

#### International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Uranyl Nitrate,	13520-83-7	Not Listed	Not present	Present	Not present	Present[35629	Present	Not present
Hexahydrate						]		

## **U.S. Regulations**

Uranyl Nitrate, Hexahydrate

New Jersey RTK Hazardous Substance List: sn 1980 (for uranyl nitrate, hexahydrate)

sn3722 (for nitrate compounds)

New Jersey (EHS) List: SN 3722 500lb. TPQ (for nitrate compounds)

Minnesota - Hazardous Substance List: Present (uranium soluble compounds)

California Directors List of Hazardous Substances: Present (listed as Uranium soluble and insoluble compounds)

## California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

## Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

#### Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male	Female
					Reproductive Toxicity:
Uranyl Nitrate, Hexahydrate	13520-83-7	Not Listed	Not Listed	Not Listed	Not Listed

## **CERCLA/SARA**

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Uranyl Nitrate, Hexahydrate	13520-83-7	None	None	None	None	None

## U.S. TSCA

Components		TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Uranyl Nitrate, Hexahydrate	13520-83-7	Not Applicable	Not Applicable

## Canada

#### WHIMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

The classification of this product has not been validated yet

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

## WHMIS 1988 Hazard Class

The classification of this product has not been validated yet

## **Canada Controlled Products Regulation:**

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

## Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Uranyl Nitrate, Hexahydrate	13520-83-7	Not Listed	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Uranyl Nitrate, Hexahydrate	13520-83-7	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Uranyl Nitrate, Hexahydrate	13520-83-7	Not listed

#### **EU Classification**

## EU GHS - SV - CLP 172/2008

Components	CAS-No.	EU GHS - SV - CLP (172/2008)
Uranyl Nitrate, Hexahydrate	13520-83-7	Acute toxicity - Oral Acute Tox. 2;
		H300 Fatal if swallowed. (Minimum
		classification, except those specified
		elsewhere in this Annex); Acute
		toxicity - Inhalation - Acute Tox. 2:
		H330 Fatal if inhaled; Specific target
		organ toxicity - Repeated exposure -
		STOT 2: May cause damage through
		prolonged or repeated exposure;
		Hazardous to aquatic environment -
		chronic hazard - Aquatic Chronic 2:
		H411 Toxic to aquatic life with long
		lasting effects (except those specified
		elsewhere in this Annex)

#### EU - CLP (1272/2008)

Product code: U1010

## R-phrase(s)

R33 - Danger of cumulative effects.

R51 - Toxic to aquatic organisms.

R53 - May cause long-term adverse effects in the aquatic environment.

R26/28 - Very toxic by inhalation and if swallowed.

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## S -phrase(s)

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.

S 1/2 - Keep locked up and out of the reach of children.

S20/21 - When using, do not eat, drink or smoke.

Components	CAS-No.		Concentration Limits:	Safety Phrases
Uranyl Nitrate, Hexahydrate		T+; R26/28-33 N; R51-53	No information	S:(1/2)-20/21-45-61

The product is classified in accordance with Annex VI to Directive 67/548/EEC

## Indication of danger:

T+ - Very toxic.

N - Dangerous for the environment.







## **16. OTHER INFORMATION**

Preparation Date: 3/23/2017
Revision Date: 3/23/2017
Prepared by: Sonia Owen

Disclaimer:

Product code: U1010

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. United Nuclear Scientific Supplies LLC. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, United Nuclear assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**