

URANYLESS Cryo-Acetone

Version : 1.0

Version date : 2022-07-05

Reference : Uranyless Cryo, Acetone

1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

Name of product : Uranyless Cryo, Acetone

Product code : 11000C-100

1.2 Relevant identified uses of the substance or mixture and uses advised against :

Contrast agent for electron microscopy guaranteed uranium free.

1.3 Details of the supplier of the safety data sheet

Company : Delta Microscopies

Address : 22 bis route de Saint Ybars ,
31190 Mauressac France

Telephone : +33 (0) 5 61 73 60 14

Fax : +33 (0) 5 61 80 78 53

Email address : info@deltamicroscopies.com

1.4 Emergency telephone number

Emergency call number in France : + 33 (0) 1 45 42 59 59 (National Poisons) .

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture :



Acute Tox. 4
Eye Dam. 2
Stot S e 3
Stot S e 3

GHS07

H302
H319
H335
H336

Harmful if swallowed
Causes a severe irritation of the eyes
May irritate the respiratory tract
May cause drowsiness or dizziness

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GHS02

Flam.liq.2

H225

2.2 Label content:

Etiquetage in accordance with the regulation (EC) No 1272/2008 [EU-GHS / CLP] .



Pictogram :

Signal word : Danger

Hazard statement :

H225: Highly flammable liquid and vapour

H302 : Harmful if swallowed

H319 : Causes serious eye irritation.

H335 : May irritate the respiratory tract

H336: May cause drowsiness or dizziness

Tips caution :

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233: Keep container tightly closed

P240: Ground and bond container and receiving equipment

P241: Use explosion-proof electrical/ ventilating/ lighting/ equipment

P242: Use non-sparking tools

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P305 + P351 + P338 IF IN EYES : Rinse cautiously with water for several minutes. Remove contact lenses if the victim is wearing them and they can be easily removed. Continue to rinse.

2.3 Other hazards :

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 **Substances** : Mixture acetate lanthanides less than 1%.

Formula : not specified

Molecular weight : not specified

Components	CAS number	EC number	%mass
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Lanthanum salts	100587-90-4	213-034-8	Concentration less than < 1
Gadolinium salts	19598-90-4	233-437-2	Concentration less than < 1
Dysprosium salts	100641-13-2	233-410-5	Concentration less than < 1
Acetone	67-64-1	200-662-2	≥97

4. FIRST AID MEASURES**4.1 Description of first aid measures**

General advice : Consult a physician. Show this safety data sheet to the doctor in attendance.

In case of inhalation : Transport the person out of the contaminated area. In case of respiratory arrest, give artificial respiration. See a doctor.

In case of skin contact : The aver soap with a large quantity of water. If irritation develops, contact a physician.

In case in eyes : Remove contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.

If swallowed : Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. See a doctor.

4.2 Main symptoms and effects, both acute and delayed :

To our knowledge, the chemical, physical and toxicological properties have not been fully investigated.

4.3 Indication of any immediate medical attention and special treatment needed :

Data not available.

5. FIRE FIGHTING MEASURES**5.1 Suitable extinguishing media :**

The product is neither flammable nor explosive. Use extinguishing media appropriate to local conditions and the surrounding environment.

5.2 Special hazards arising from the substance or mixture :

Carbon oxides Combustible. Beware of flashback. Vapors are heavier than air and may spread on the ground. In case of fire, risk of formation of combustion gases or dangerous vapors. Formation of explosive mixtures with air can occur at normal temperatures.

5.3 Advice for firefighters :

In case of fire and/or explosion, do not breathe fumes. Fight fire from a distance using normal precautions. Wear self-contained breathing apparatus

5.4 Additional information :

Remove containers from danger area, cool with water. Prevent fire fighting water from contaminating surface water or groundwater supply.

6. MEASURES TO TAKE IN ACCIDENTAL RELEASE

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6.1 Personal precautions :

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid contact with the substance. Provide adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, follow emergency procedures, consult a specialist. For personal protective equipment, see section 8.6.2 **Precautions for environmental protection :**

Prevent product from entering drains.

6.3 Methods and materials for containment and cleaning up :

R raise and disposal without creating dust. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections :

For disposal, see section 13.

7. HANDLING AND STORAGE

7.1 Precautions to ensure safe handling :

Tips for safe handling

Work under a fume hood. Do not inhale the substance/mixture. Release of vapour/avoid aerosols.

Information about protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautions against electrostatic discharge.

Hygiene measures

Remove all contaminated clothing. Preventive skin protection is recommended. Wash hands after work.

For precautions, see section 2.2

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7.2 Safe storage conditions :

Keep away from heat and sources of ignition. Keep container tightly closed in a dry and well-ventilated place.

8. EXPOSURE CONTRAL / PERSONAL PROTECTION

8.1 Control parameters

Components with occupational exposure limit values : Contains no substances with occupational exposure limit values.

Composant	N° CAS	Control parameters	Value	Base
Acétone	67-64-1	TWA	500 ppm 1.210 mg/m3	Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

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Value	Control parameter	Base
VLCT (VLE)	1.0 ppm 2.420 mg/m ³	Occupational exposure limit values for chemical agents in France (INRS)

Value	Control parameter	Base
VME	500ppm 1.210 mg/m ³	Occupational exposure limit values for chemical agents in France (INRS)

Predicted no effect concentration (PNEC)

Compartment	Value
Fresh water	10,6 mg/l
Sea mer	1,06 mg/l
Freshwater sediment	30.4 mg/kg
Marine sediment	3.04 mg/kg
Soil	29.5 mg/kg
Sewage treatment plant	100 mg/l

8.2 Exposure controls

Appropriate engineering controls : Handle in accordance with good industrial hygiene practices and safety guidelines . Wash hands before breaks and at the end of the work day.

Personal protective equipment :

Eye / face protection : Safety glasses with side shields. Use eye protection equipment tested and approved according to applicable standards and regulations. Such as NIOSH (US) or EN 166 (EU).

Hand / Skin Protection : Handle with gloves. Use an appropriate glove removal technique to prevent skin contact with the product (ie without touching the outer surface of the glove). Gloves p rotection selected must satisfy the specifications of EU Directive 89/686 / EEC and standard EN 374 that follows. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practice. Wash and dry hands.

General measures are protection and hygiene : A nsure the presence of rinses eye and a do uche safety. Use adequate ventilation. Handle in accordance with good industrial hygiene practices and safety instructions. Wash hands before breaks and at the end of the work day.

Respiratory protection : In the event of nuisance exposure, use a respirator with a particle filter type P1 (EN143) or type N95 (US). Use equipment tested and approved by standards such as NIOSH (US) or CEN (EU).

Body protection : C hoose protection according to the amount and concentration of the dangerous substance at work.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance

Form : liquid

Color : transparent white

Odor : characteristic odor

9.2 Information on basic physical and chemical properties

pH : close to 6

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Melting point : no data available

Boiling point : 56 ° C

Flash point : no data available

Ignition temperature : no data available

Self-ignition capacity : no data available

Lower explosion limit : no data available

Upper explosion limit : no data available

Oxidising properties : no data available

Vapor pressure at 20 ° C : no data available

Average relative density : no data available

Hydro - solubility : no data available

Organic solvents : no data available

Solids content : no data available

Viscosity : no data available

Vapor density : no data available

Evaporation rate : no data available

Conductivity : no data available

Others : no data available

10. STABILITY AND REACTIVITY

10.1 Chemical stability : It is a reactive substance. Risk of ignition. Vapors may form an explosive mixture with air. When heated Risk of ignition..

10.2 Conditions to avoid : no data available

10.3 Materials to avoid : Risk of ignition: strong oxidizer, Reducers, Nitric acid, Chromium(VI) oxide

Exothermic reaction with: Alkali metals, Alkali hydroxide (alkaline caustic), Bromine, Halogenated hydrocarbons, Explosion hazard: Chloroform, Hydrogen peroxide

10.4 Possibility of a hazardous reaction : Keep away from heat, hot surfaces, sparks, open flames and other sources of ignition. Do not smoke.

10.5 Hazardous decomposition products : Hazardous combustion products

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11. TOXICOLOGICAL INFORMATION

Harmful if swallowed.

LD/LC50 values relevant for classification:

Oral LD50 5,800 mg/kg (rat)

Dermal LD50 20.000 mg/kg (rabbit)

Primary irritant effect:

Skin corrosion/skin irritation

Based on the available data, the classification criteria are not met.

Severe eye damage/eye irritation

Causes severe eye irritation.

Respiratory or skin sensitization

Based on the available data, the classification criteria are not met.

Additional toxicological information:

CMR effects (carcinogenic, mutagenic and toxic for reproduction)

Germ cell mutagenicity

Based on the available data, the classification criteria are not met.

Carcinogenicity

Based on the available data, the classification criteria are not met.

Reproductive toxicity

Based on the available data, the classification criteria are not met.

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

Based on the available data, the classification criteria are not met.

Aspiration hazard

Based on the available data, the classification criteria are not met.

12. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

12.1 Ecotoxic effects :

Aquatic toxicity (acute)				
Effect	Value	Species	Source	Duration of exposure
LC50	5.540mg/l	Fish	ECHA	96h

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Toxicité aquatique (chronique)				
Effect	Value	Species	Source	Duration of exposure
EC50	61,15g/l	Micro-organisms	ECHA	30 min

12.2 Persistence and degradability :

Theoretical Oxygen Demand: 2,204 mg/mg

Theoretical Carbon Dioxide: 2,273 mg/mg

Biochemical Oxygen Demand: 1,85 g /g at 5 d

Process of degradability		
Processus	Degradation speed	Time
formation of carbon dioxide	90,9%	28d

12.3 Bioaccumulative potential : no data available.**12.4 Mobility in soil :** no data available**12.5 Results of PBT and vPvB assessment :** no data available.**12.6 Other adverse effects :** no data available .**13. DISPOSAL CONSIDERATIONS IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING****13.1 Method of disposal of the substance / mixture :** Hand over surplus and non-recyclable solutions to an approved waste disposal company.**Disposal of contaminated packaging :** Dispose of as unused product.**14. TRANSPORT INFORMATION****14.1 UN number**

ADR/RID: 1090 IMDG: 1090 IATA: 1090

14.2 UN proper shipping name

ADR/RID: ACETONE

IMDG: ETHANOLACETONE

IATA: Acethone

14.3 Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

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14.4 Packaging group

ADR/RID: II IMDG: II IATA: II

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user

No data available

15. INFORMATION REGULATORY

15.1 Label information :

Directives and regulations according to CE : SDS according to Reg CE N ° 1907/2006

National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

15.2 Chemical safety assessment : For this product a chemical safety assessment was not carried out

16. OTHER DATA

Department responsible for the SDS: Delta Microscopies France

Contact : Delta Microscopies France

Other information :

ADR : European Agreement on the Transport of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

vPvB : very Persistent and very Bioaccumulative

The above information has been prepared on the basis of the best information available at the time of writing. They do not claim to be exhaustive and should be considered as a guide. This information relates only to the specific product designated on this sheet and is not applicable for this product used in combination with other products or obtained by other processes. It is the user's responsibility to carry out their own investigations to determine the relevance of the information for their specific application.

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