



SECTION 1: Identification

1.1 Identification

Product Name: **Uranyless C staining solution in acetone**

Product Code: 29-005060

1.2 Relevant identified uses of substance or mixture and not recommended uses

Contrast agent for electron microscopy guaranteed uranium free

1.3 Information about the security data sheet provider

Micro to Nano
Tappersweg 91
2031ET Haarlem
Netherlands
Tel: +31(0)85-2013155
E: info@microtonano.com

1.4 Emergency call number

112 (NLD) or your national emergency telephone number for chemical spills, leaks, fires, exposures or accidents

SECTION 2: Identification of hazards

2.1 Classification of substance or mixture:



GHS07

Acute Tox. 4	H302	Harmful if swallowed
Eye Dam. 2	H319	Causes a severe irritation of the eyes
Stot S e 3	H335	May irritate the respiratory tract
Stot S e 3	H336	May cause drowsiness or dizziness



GHS02

Flam.liq.2	H225	Highly flammable liquid and vapour
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2.2 Labeling items:

Labelling 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 dangers:

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.

SECTION 3: Composition/component information

3.1 Substances:

not applicable

3.2 Mixture:

Mixture lanthanides <3%. Formula :

not specified Molecular weight : not
specified

Components	CAS number	EC number	%mass
Mixture acetate lanthanides			< 3



Acetone	67-64-1	200-662-2	≥97
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HEADING 4: First aid

4.1 Description of first aid

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

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

In case of skin contact : Wash 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, acute and delayed

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

4.3 Indications of any immediate medical care and special treatment required

Data not available

HEADING 5: Firefighting measures

5.1 Ways to extinguish

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

5.2 Specific hazards resulting from 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 to 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.

HEADING 6: Measures in case of accidental dispersal



6.1 Individual precautions, protective equipment and emergency procedures

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

6.2 Precautions for environmental protection

Prevent product from entering drains.

6.3 Containment and cleaning methods and equipment

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

6.4 Reference to other topics

For information for safe handling, see Chapter 7. For information on personal protective equipment, see Chapter 8. For information on disposal, see Chapter 13.

SECTION 7: Manipulation and storage

7.1 Precautions to Take for 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

7.2 Conditions for safe storage, including possible incompatibilities

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

7.3 Special Final Use

Laboratory use

SECTION 8: Exposure controls/individual protection

8.1 Control Settings

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

Composition	Nº CAS	Control parameters	Value	Base
Acetone	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

8.2 Exposure control

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 protection 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 : Ensure the presence of eye-rinses and a safety shower. 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 : Choose protection according to the amount and concentration of the dangerous substance at work.

HEADING 9: Physical and chemical properties

9.1 Information on essential physical and chemical properties

Appearance: Liquid

Color: transparent

Smell: characteristic odor

Olfactory threshold: data not available

pH: close to 6

Melting point: data not available

Boiling point/interval: 56°C

Flashpoint: data not available

Flammability (solid, gas): data not available

Decomposition temperature: data not available

Danger of explosion data not available.

Explosive limit, higher: data not available

Explosive limit, lower: data not available

Vapor pressure: data not available

Relative density: data not available

Relative steam density: not applicable

Solubility in / Miscibility with Water: soluble

Partition coefficient (n-octanol/water): Not determined.

Viscosity, dynamic: not applicable

Viscosity, cinematic: not applicable

9.2 More information

void

SECTION 10: Stability and responsiveness

10.1 reactivity

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

10.2 Chemical stability

no data available

10.3 Conditions to avoid

Risk of ignition: powerful oxidizer, Reducing agents, Nitric acid, Chromium(VI) oxide
Exothermic reaction with: Alkali metals, Alkali hydroxide (alkaline caustic), Bromine, Halogenated hydrocarbons, Explosion hazard: Chloroform, Hydrogen peroxide

10.4 Incompatible materials

Keep away from heat, hot surfaces, sparks, open flames and other sources of ignition. Do not smoke.

10.5 Dangerous composition products

Hazardous combustion products

10.6 Possibility of dangerous reaction

no data available

HEADING 11: Toxicological information

11.1 Toxicological Effects 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 available data, classification criteria not met.

Serious eye damage/eye irritation

Causes severe eye irritation.

Respiratory or skin sensitization

Based on available data, classification criteria not met.

Additional toxicological information:

CMR effects (carcinogenic, mutagenic and toxic for reproduction)

Germ cell mutagenicity

On the basis of the available data, the classification criteria are not met.

Carcinogenicity

On the basis of available data, the classification criteria are not met.

Reproductive toxicity

On the basis of 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 available data, the classification criteria are not met.

Aspiration hazard

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

HEADING 12: Ecological information

12.1 Toxicity

No data available.

Fish toxicity

Dynamic test LC50 - Pimephales promelas (Fathead minnow) - 6,210 mg/l - 96 h
(OECD guideline 203)

Toxicity to Daphnia and others

Static test LC50 - Daphnia pulex (Daphnia) - 8,800 mg/l - 48h

Aquatic invertebrates

Remarks: (ECHA)

Toxicity to algae

Static test NOEC - M. aeruginosa - 530 mg/l - 8 dr
(DIN 38412)

Remarks: (toxicity limit concentration)

(IUCLID)

Toxicity to bacteria

Static test EC50 - activated sludge - 61.15 mg/l - 30 min
(OECD Guideline 209)

12.2 Persistence and degradability

Biodegradability

aerobic - Exposure time 28 d

Result: 91 % - Readily biodegradable.
(OECD Guideline 301 B)

Biochemical oxygen demand (BOD)

1,850 mg/g

Remarks: (IUCLID)

Chemical Oxygen Demand (COD)

2,070 mg/g

Remarks: (IUCLID)

Theoretical oxygen demand

2,200 mg/g

Remarks: (bibliography)

12.3 Bioaccumulation Potential

No other important information available.

12.4 Mobility in the ground

no data available

12.5 Results of PBT and vPvB evaluations

no data available

12.6 Other adverse effects

No other important information available.

HEADING 13: Elimination considerations

13.1 Waste Treatment Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Disposal of contaminated packaging : Dispose of as unused product.

HEADING 14: Transportation information

14.1 UN Number
ADR **UN1090**

14.2 United Nations Shipping Name
ADR **1090 ACETONE**
IMDG,IATA **ACETONE**

14.3 Transport Danger Class

ADR, IMDG,IATA



class **3 Flammable liquids**
label **3**
II

14.4 Packing Group
ADR, IMDG, IATA

14.5 Dangers for the environment

14.6 Special precautions to be taken by the user Hazard identification number (Kemler code): EMS Number:
Stowage Category

No applicable

*Warning: Flammable liquids 33
F-E,S-D
A*

14.7 Bulk transport in accordance with Schedule II of the MARPOL Convention and the IBC

*On passenger aircraft/rail: 5 L
On cargo aircraft only: 60 L*

DOT
Quantity limitations

ADR
Excepted quantities (EQ)

*Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml*

IMDG

Limited quantities (LQ) 1L
Excepted quantities (EQ)

*1L
Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml*

UN "standard rules"

UN 1090 ACETONE, 3, II

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific to the substance or mixture

This safety data sheet complies with the requirements of Regulation (EC) No.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: FLAMMABLE LIQUIDS

National legislation

Installations classified for environmental protection (Environmental code R511-9) 4331:

Category 2 or category 3 flammable liquids, excluding heading

4330. Other regulations Follow directive 94/33/EC concerning the protection of young people at work.

15.2 Chemical safety assessment: data not available

SECTION 16: More information

These indications are based on the current state of our knowledge, but do not constitute a guarantee as to the properties of the product and do not give rise to a contractual legal relationship. They do not claim to be exhaustive and should be considered as a guide

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 End of the SDS