


<a href="#">Yttrium(III) Chloride Hydrate</a>		<a href="#">Pricing &gt;</a>
Linear Formula	$\text{YCl}_3 \cdot x\text{H}_2\text{O}$	
Pubchem CID	57347377	
MDL Number	MFCD00149941	
EC No.	233-801-0	
IUPAC Name	yttrium(3+); trichloride; hydrate	
Beilstein/Reaxys No.	N/A	
SMILES	O.[Cl-].[Cl-].[Cl-].[Y+3]	
Inchl Identifier	InChI=1S/3ClH.H2O.Y/h3*1H;1H2;/q;;;+3/p-3	
Inchl Key	BWOAAAYNOWWMHL-UHFFFAOYSA-K	
Signal Word	Warning	
Hazard Statements	H315-H319-H335	
Hazard Codes	Xi	
Precautionary Statements	P261-P280-P305+P351+P338-P304+P340-P405-P501	
Flash Point	Not applicable	
Risk Codes	36/37/38	
Safety Statements	26	
RTECS Number	ZG3150000	
Transport Information	NONH for all modes of transport	
WGK Germany	3	
GHS Pictograms	<a href="#">GHS07 Exclamation Point</a> 	

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## SAFETY DATA SHEET

Date Accessed: 04/19/2024

Date Revised: 01/15/2022

### SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #12741-05-8

**Relevant identified uses of the substance:**  
Scientific research and development

Supplier details:  
American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351

Emergency telephone number:  
Domestic, North America +1 800-424-9300  
International +1 703-527-3887

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## SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture  
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)  
Skin irritation(Category 2), H315  
Eye irritation(Category 2A), H319  
Specific target organ toxicity -single exposure(Category 3),  
Respiratory system, H335  
GHS Label elements, including precautionary statements  
Pictogram



Signal word  
Warning  
Hazard statement(s)  
H315  
Causes skin irritation.  
H319  
Causes serious eye irritation.  
H335  
May cause respiratory irritation.  
Precautionary statement(s)  
P261  
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P264  
Wash skin thoroughly after handling.  
P271  
Use only outdoors or in a well-ventilated area.  
P280  
Wear eye protection/ face protection.  
P280  
Wear protective gloves.  
P302 + P352  
IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 + P312  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a

POISON CENTER or doctor/ physician if you feel unwell.  
P305 + P351 + P338  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P332 + P313  
If skin irritation occurs: Get medical advice/ attention.  
P337 + P313  
If eye irritation persists: Get medical advice/ attention.  
P362  
Take off contaminated clothing and wash before reuse.  
P403 + P233  
Store in a well-ventilated place. Keep container tightly closed.  
P405  
Store locked up.  
P501  
Dispose of contents/ container to an approved waste disposal plant.  
Hazards not otherwise classified (HNOC) or not covered by GHS-none

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### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substances  
Formula:  $\text{Cl}_3\text{Y} \cdot \text{XH}_2\text{O}$   
Molecular weight: 303.36 g/mol  
CAS-No.: 12741-05-8  
EC-No.: 233-801-0

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### **SECTION 4. FIRST AID MEASURES**

Description of first aid measures  
General advice  
Consult a physician. Show this safety data sheet to the doctor in attendance.  
Move out of dangerous area.  
If inhaled  
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.  
In case of skin contact  
Wash off with soap and plenty of water. Consult a physician.  
In case of eye contact  
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.  
If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.  
Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

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## **SECTION 5. FIREFIGHTING MEASURES**

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Hydrogen chloride gas, Yttrium oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas.

Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust.

Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

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## **SECTION 7. HANDLING AND STORAGE**

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Storage class (TRGS 510): Non Combustible Solids

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

Form: Crystals with lumps

Color: white

Odor

No data available

Odor Threshold

No data available

pH

No data available

Melting point/freezing point

Melting point/range: 100 °C (212 °F)-dec.

Initial boiling point and boiling range

No data available

Flash point

Not applicable

Evaporation rate

No data available

Flammability (solid, gas)

No data available

Upper/lower flammability or explosive limits

No data available

Vapor pressure

No data available

Vapor density

No data available

Relative density

2.18 g/cm<sup>3</sup> at 25 °C (77 °F)

Water solubility

No data available

Partition coefficient: n-octanol/water

No data available

Auto-ignition temperature

No data available

Decomposition temperature

No data available

Viscosity

No data available

Explosive properties

No data available

Oxidizing properties

No data available

Other safety information

No data available

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## SECTION 10. STABILITY AND REACTIVITY

Reactivity

No data available  
Chemical stability  
Stable under recommended storage conditions.  
Possibility of hazardous reactions  
No data available  
Conditions to avoid  
Avoid moisture.  
Incompatible materials  
Strong oxidizing agents  
Hazardous decomposition products  
Other decomposition products-No data available  
In the event of fire: see section 5

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects  
Acute toxicity  
No data available  
Inhalation: No data available  
Dermal: No data available  
LD50 Intraperitoneal-Mouse-158 mg/kg  
Skin corrosion/irritation  
No data available  
Serious eye damage/eye irritation  
No data available  
Respiratory or skin sensitisation  
No data available  
Germ cell mutagenicity  
No data available  
Carcinogenicity  
IARC:  
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
NTP:  
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.  
OSHA:  
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.  
Reproductive toxicity  
No data available  
No data available  
Specific target organ toxicity -single exposure  
Inhalation-May cause respiratory irritation.  
Specific target organ toxicity -repeated exposure  
No data available  
Aspiration hazard  
No data available

#### Additional Information

RTECS: ZG3160000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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## SECTION 12. ECOLOGICAL INFORMATION

#### Toxicity

No data available

#### Persistence and degradability

No data available

#### Bioaccumulative potential

No data available

#### Mobility in soil

No data available

#### Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

#### Other adverse effects

No data available

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## SECTION 13. DISPOSAL CONSIDERATIONS

#### Waste treatment methods

##### Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contact a licensed professional waste disposal service to dispose of this material.

##### Contaminated packaging

Dispose of as unused product.

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## SECTION 14. TRANSPORT INFORMATION

#### DOT (US)

Not dangerous goods

#### IMDG

Not dangerous goods

#### IATA

Not dangerous goods

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## SECTION 15. REGULATORY INFORMATION

#### SARA 302 Components

No chemicals in this material are subject to the



reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

Yttrium chloride hexahydrate

CAS-No.

10025-94-2

New Jersey Right To Know Components

Yttrium chloride hexahydrate

CAS-No.

10025-94-2

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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## 16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.