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# SAFETY DATA SHEET

#### Section 1. Identification

Yttrium(III) acetylacetonate hydrate **Product Name:** 

**Product Type:** Solid

207801-29-4 **CAS Number:** 

**Product Number:** Y1294

**Recommended Use:** Laboratory chemicals, synthesis of substances.

This product is being supplied under the TSCA R&D Exemption (40 **Uses Advised Against:** 

> CFR Section 720.36). It is the recipient's responsibility to comply with the requirements of the R&D exemption. The product may not be used for a non-exempt commercial purpose under TSCA unless

appropriate consent is granted in writing by Ereztech LLC.

Ereztech LLC **Product Manufacturer:** 

11555 Medlock Bridge Road, Suite 100

Johns Creek, GA 30097

**Product Information:** (888) 658-1221

CHEMTREC: 1-800-424-9300 (USA); In Case of an Emergency:

> +1 703-527-3887 (International); CCN836180 \*\*\* Contact manufacturer for all non-emergency calls.

#### Section 2. Hazards Identification

Appearance/Odor: White to yellow powder or crystals, odor not determined.

Classification: SKIN CORROSION/IRRITATION - Category 2, H315

> SERIOUS EYE DAMAGE/EYE IRRITATION – Category 2A, H319 SPECIFIC ORGAN TOXICITY, SINGLE EXPOSURE; RESPIRATORY

TRACT IRRITATION – Category 3, H335

REPRODUCTIVE TOXICITY - Category 2, H361

**GHS Label Elements** 

**Hazard Pictograms:** 



WARNING Signal Word:

#### Section 2. Hazards Identification

**Hazard Statements:** H315: Causes skin irritation.

> H319: Causes serious eye irritation. H335: May cause respiratory irritation.

H361: Suspected of damaging fertility or the unborn child.

**Precautionary Statements** 

**Prevention:** P203: Obtain, read and follow all safety instructions before use.

P261: Avoid breathing dusts/aerosols/vapors/gases.

P264 + P265: Wash hands and exposed skin thoroughly after

handling. Do not touch eyes.

P271: Use only outdoors or with adequate ventilation. P280: Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P302 + P352: IF ON SKIN: Wash with plenty of water. Response:

P304 + P340: IF INHALED: Remove person to fresh air and keep

comfortable for breathing.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for

several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing.

P318: IF exposed or concerned or if you feel unwell, get medical

advice/help.

P332 + P317: If skin irritation occurs: Get medical help.

P337 + P317: If eye irritation persists: Get medical help.

P362 + P364: Take off contaminated clothing and wash it before

reuse.

P403 + P233: Store in a well ventilated place. Keep container Storage:

tightly closed.

P405: Store locked up.

P501: Dispose of contents/container in accordance with federal, **Disposal:** 

state and local regulation.

**OSHA/HCS Status:** This material is considered hazardous by the OSHA Hazard

Communication Standard (29 CFR 1910.1200).

**Hazards Not Otherwise** Classified (HNOC):

None identified.

### Section 3. Composition/Information on Ingredients

Substance Type: Mono-constituent.

Synonyms: Yttrium(III) 2,4-pentanedionate hydrate;

Tris(acetylacetonato)yttrium n-hydrate Y(acac)3 hydrate.

Formula:  $YC_{15}H_{21}O_6 \cdot xH_2O$ **Molecular Weight:** 386.23 g/mol. 689-573-1 EC-No.:

### Section 3. Composition/Information on Ingredients

Component Name	%	CAS Number
Yttrium(III) acetylacetonate hydrate	≥ 99.9	207801-29-4

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

#### Section 4. First Aid Measures

#### **Description of Necessary First Aid Measures**

**General Advice:** Move out of dangerous area. If unconscious, place in recovery position and get

> medical help immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If exposed or concerned or if you feel unwell,

get medical advice/help. Show this safety data sheet to the doctor in

attendance.

Immediately flush eyes with plenty of water, occasionally lifting the upper and Eye Contact:

lower eyelids. Check for and remove any contact lenses if easy to do. Continue

rinsing. Get medical help if eye irritation develops and persists.

**Skin Contact:** Take off contaminated clothing and shoes immediately. Wash off contaminated

skin with plenty of water. Get medical help if irritation develops and persists, if

symptoms develop or if you feel unwell.

Remove person to fresh air and keep comfortable for breathing. If not Inhalation:

breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial

respiration or oxygen by trained personnel. It may be dangerous to the person

providing aid to give mouth-to-mouth resuscitation. Get medical help if

symptoms develop or if you feel unwell.

Rinse mouth. Do NOT induce vomiting. Remove dentures if any. If vomiting Ingestion:

> occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Get medical help if

symptoms develop or if you feel unwell.

Most Important Symptoms/Effects, Acute And Delayed Potential Acute Health Effects

**Eye Contact:** Symptoms may include stinging, tearing, redness, swelling and blurred vision.

Inhalation: Product may be irritating to respiratory system. Symptoms may include

coughing, sneezing with phlegm production, sore throat, nausea, headache,

vomiting.

Skin Contact: Symptoms may include an itching or burning sensation, reddening, swelling and

blistering with tissue necrosis.

Product may be expected to be irritating to mucous membranes. Symptoms may Ingestion:

include cramping, localized pain, headache, nausea and vomiting.

#### Section 4. First Aid Measures

Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary

**Notes to Physician:** Treat symptomatically. **Specific Treatments:** No specific treatment.

**Protection of First Responders:** No action taken shall be taken involving any personal risk

> without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**See Toxicological Information (Section 11)** 

### Section 5. Fire Fighting Measures

None identified. **General Hazards:** 

Use water spray (fog), dry chemical, carbon dioxide or **Suitable Extinguishing Media:** 

appropriate foam.

None identified. **Unsuitable Extinguishing Media:** 

**Unusual Fire and** None identified. **Explosion Hazards:** 

Decomposition products include carbon oxides (CO<sub>x</sub>) and **Product of Combustion:** 

> yttrium oxides. Irritating fumes and organic acid vapors may be generated during exposure to elevated temperatures or

open flame.

**Protection of Firefighters:** Promptly isolate the scene by removing all persons from the

> vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Avoid the formation and inhalation of dusts, aerosols, vapors

and gases.

Fire-fighters should wear appropriate protection equipment and self-contained breathing apparatus (SCBA) with a full

face-piece operated in a positive pressure mode.

#### Section 6. Accidental Release Measures

#### Personal Precautions, Protective Equipment and Emergency Procedures

For Non-Emergency Personnel: No action shall be taken involving any personal risk or without

suitable training. Evacuate surrounding areas. Keep

unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid the formation and inhalation of dusts, aerosols, vapors and gases. Provide adequate ventilation. Wear respiratory protection. Put on

appropriate personal protective equipment.

#### Section 6. Accidental Release Measures

For Emergency Responders: If specialized clothing is required to deal with the spillage, take

note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For Non-Emergency

Personnel".

**Environmental Precautions:** Do not allow dispersal of spilled material and contact with soil,

waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers,

waterways, soil or air).

**Methods for Containment** 

General: Move containers from spill area if safe to do so. Avoid the

formation and inhalation of dusts, aerosols, vapors and gases. Dispose of collected spillage in accordance with federal, state and local regulations. Contaminated binding material may pose

the same hazard as the spilled product.

Small Spill: Collect spillage with a dry, binding material (e.g. dry sand,

vermiculite or diatomaceous earth) and place in dry, sealed

container for disposal.

Large Spill: Approach release from upwind. Prevent entry into sewers,

water courses, basements or confined areas. Contain and collect spillage with a dry, binding material (e.g. dry sand, vermiculite or diatomaceous earth) and place in dry, sealed

container for disposal.

Note: see Section 1 for emergency contact information and

Section 13 for waste disposal.

### Section 7. Handling and Storage

Precautions: Keep container tightly sealed. Avoid contact with skin, eyes

and clothing. Avoid the formation and inhalation of dusts, aerosols, vapors and gases. Do not ingest. Avoid prolonged

exposure. Ensure adequate ventilation.

Protective Measures: Put on appropriate personal protective equipment (see Section

8). Keep in the original container kept tightly closed when not in use. Empty containers retain product residue and can be

hazardous. Do not reuse container.

General Occupational Hygiene: Eating, drinking and smoking should be prohibited in areas

where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective

equipment before entering eating areas. See also Section 8 for

additional information on hygiene measures.

Ereztech Y1294 Page 5 of 14 Revision: 1.00

### Section 7. Handling and Storage

Safe Storage Conditions:

Store in original container protected from direct sunlight in a dry and well-ventilated area, away from incompatible materials and food and drink. Keep container tightly closed and sealed until ready for use. Store locked up.

### Section 8. Exposure Controls/Personal Protection

**Introductory Remarks:** 

These recommendations provide general guidance for handling this product. Because work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and conduct regular repairs. Waste from these procedures should be handled in accordance with Section 13.

**Occupational Exposure Limits:** 

Product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the regionspecific regulatory bodies.

**Engineering Controls:** 

Properly operating explosion-proof, chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute. Provide an eyewash/shower station.

**Environmental Exposure Controls:** 

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Individual Protection Measures** 

**Hygiene Measures:** 

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Remove all soiled and contaminated clothing immediately. Avoid the formation and inhalation of dusts, aerosols, vapors and gases. Avoid contact with eyes and skin. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/Face Protection:** 

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to sprays or mists.

Ereztech Y1294 Page 6 of 14 Revision: 1.00

### Section 8. Exposure Controls/Personal Protection

Eye/Face Protection (cont.):

If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles, faceshield (8-inch minimum). Refer to 29 CFR 1910.133, ANSI Z87.1, or European Standard EN166.

**Skin Protection** 

**Hand Protection:** 

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: Chemical-resistant gloves. For full contact, wear Neoprene or nitrile rubber 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.

Other Skin Protection:

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory Protection:** 

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Section 9. Physical and Chemical Properties

Physical State: Solid (powder or crystals).

Color: White to yellow.

Ereztech Y1294 Page 7 of 14 Revision: 1.00
Date of Issue: 5/12/2025

### Section 9. Physical and Chemical Properties

Odor: Odorless.

**Odor Threshold:** No data available. No data available. :Ha

**Melting Point:** 130 - 190 °C (266 - 374 °F).

**Boiling Point:** No data available. No data available. Flash Point: **Specific Gravity:** No data available. No data available. **Vapor Pressure:** No data available. Vapor Density:

Water Solubility: Insoluble.

No data available. **Evaporation Rate:** Not applicable. **Viscosity:** 

## Section 10. Stability and Reactivity

Reactivity: No reactivity hazards have been identified for this

product.

Stable at normal ambient temperature and pressure and Chemical Stability:

under recommended storage conditions.

Extremes of temperature and direct sunlight. **Conditions to Avoid:** 

**Incompatible Materials:** Strong oxidizing agents.

**Hazardous Decomposition Products:** Under normal conditions of storage and use, hazardous

> decomposition products should not be produced. Hazardous decomposition products formed under fire conditions: carbon oxides (CO<sub>X</sub>) and yttrium oxide fumes.

Irritating fumes and organic acid vapors may be

generated during exposure to elevated temperatures or

open flame. In the event of a fire: see Section 5.

Under normal conditions of storage and use noted above, **Possibility of Hazardous Reactions:** 

hazardous reactions will not occur. Hazardous reactions

or instability may occur under certain conditions of

storage or use.

## Section 11. Toxicological Information

Information on Toxicological Effects

**Acute Toxicity:** No specific data available.

Causes skin irritation and serious eye irritation. Irritation/Corrosion:

### Section 11. Toxicological Information

Sensitization: No specific data available. No specific data available. **Germ Cell Mutagenicity:** 

Carcinogenicity

No component of this product present at levels greater **IARC** 

than 0.1% is identified as probable, possible or

confirmed human carcinogen by IARC.

No component of this product present at levels greater **ACGIH** 

than 0.1% is identified as probable, possible or

confirmed human carcinogen by ACGIH.

No component of this product present at levels greater **NTP** 

than 0.1% is identified as probable, possible or

confirmed human carcinogen by NTP.

**OSHA** No component of this product present at levels greater

than 0.1% is identified as probable, possible or

confirmed human carcinogen by OSHA.

Product is suspected of damaging fertility or the unborn **Reproductive Toxicity:** 

**Teratogenicity:** No specific data available.

**Specific Target Organ Toxicity:** Inhalation – May cause respiratory tract irritation.

(Single Exposure)

**Specific Target Organ Toxicity:** No specific data available.

(Repeated Exposure)

**Aspiration Hazard:** No specific data available.

Information on the Likely

Common routes of exposure: inhalation (failure to prevent dust formation), dermal (failure to use skin **Routes of Exposure:** protection), eye (failure to use safety eyewear). Less

common: ingestion (failure to employ recommended hygiene measures (e.g. smoking after handling product

without washing hands or using hand protection).

To the best of our knowledge, the chemical, physical **Additional Information:** 

and toxicological properties of this product have not

been thoroughly investigated.

## Section 12. Ecological Information

**Ecotoxicity:** Product may cause long-term adverse effects in the

aquatic environment.

**Numerical Measures of Toxicity:** No specific data available.

Revision: 1.00 Ereztech Y1294 Page 9 of 14

### Section 12. Ecological Information

Persistence and Degradability

**Biodegradability:** No specific data available.

**Bioaccumulative Potential:** Product is insoluble and water and may persist.

**Mobility in Soil:** Product is not likely to be mobile in the environment due

to its very low water solubility.

Results of PBT and vPvB Assessment: PBT/vPvB assessment not available as chemical safety

assessment not conducted.

No specific data available. **Endocrine Disrupting Properties:** 

Other Adverse Effects: An environmental hazard cannot be excluded in the

event of unprofessional handling or disposal.

### Section 13. Disposal Considerations

**Waste Treatment Methods** 

**Product:** 

Dispose of in accordance with local, state, and federal regulations. Refer to 40 CFR 260-299 for complete waste disposal regulations. Consult your local, state, or federal agency before disposing of any chemicals.

Empty containers retain product residue (dusts, **Contaminated Packaging:** 

aerosols) and can be dangerous. Dispose of as unused

product.

### Section 14. Transport Information

	DOT	IMDG	IATA
UN Number	Not regulated.	Not regulated.	Not regulated.
UN Proper Shipping Name	-	-	-
Transport Hazard Classes	-	-	-
Packing Group	-	-	-
Environmental Hazards	-	-	-
Additional Information	-	-	-

Special Precautions for User:

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

### Section 15. Regulatory Information

#### TSCA (Toxic Substance Control Act):

This product is not listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory). Use of this product is restricted to research and development only. This product must be used under the supervision of a technically qualified individual as defined by the TSCA. This product must not be used for commercial purposes or in formulations for commercial purposes.

This product as supplied is not subject to the TSCA Significant New Use Rule.

This product as supplied is not subject to TSCA 12(b) export notification requirements.

#### **SARA 302 Components**

This product does not contain any components which are subject to the reporting requirements of SARA Title III. Section 302 EHS TPQ.

#### **SARA 304 Components**

This product does not contain any components which are subject to the reporting requirements of SARA Title III, Section 304 RQ.

#### SARA 311/312 Hazards

Acute Health Hazard (Skin Corrosion or Irritation; Serious eye damage or eye irritation; Specific target organ toxicity, single exposure: respiratory irritation), Chronic Health Hazard (Reproductive toxicity).

#### **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.

#### **Clean Water Act**

Not applicable.

#### Clean Air Act

Not applicable.

#### **CERCLA Reportable Quantity**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

#### **US Department of Homeland Security (DHS)**

This product does not contain any DHS chemicals.

#### **US Department of Transportation (DOT)**

Component	Reportable Quantity	DOT Marine Pollutant	DOT Severe Marine Pollutant
Yttrium(III) acetylacetonate hydrate	No	No	No

### Section 15. Regulatory Information

#### **US State Right-to-Know Listings**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Yttrium(III) acetylacetonate hyd	- Irate	-	-	-	-

<sup>&</sup>quot;X" - Listed.

#### **US State Chemicals of High Concern Listings**

Component	Maine	Vermont	Washington
Yttrium(III) acetylacetonate hydrate	-	-	-

<sup>&</sup>quot;X" - Listed.

#### California Proposition 65 Components

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

#### Section 16. Other Information

#### National Fire Protection Association (U.S.A.)



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Copyright © 2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Ereztech Y1294 Page 12 of 14 Revision: 1.00

#### Section 16. Other Information

#### **HMIS Rating**



#### **History**

Date of Issue/Date of Revision: 5/12/2025. **Date of Previous Issue:** None.

References: None available.

#### **Abbreviations and Acronyms**

: American Conference of Governmental Industrial Hygienists. ACGIH

AIHA : American Industrial Hygiene Association.

: Acute Toxicity Estimate (per Chapter 3.1 of GHS 10 standard). ATE

BEI : Biological Exposure Indices (ACGIH).

: Chemical Abstracts Service (division of the American Chemical Society). CAS

CHRIS : Chemical Hazards Response Information System (US DOT). CLP : Classification, Labeling and Packaging (European Union (EU)).

DOT : US Department of Transportation.

EC-No. : The EC Inventory (EINECS, ELINCS and the NLP-list is the source of the seven digit

EC number, an identifier of substances commercially available with the EU (European

: European Inventory of Existing Commercial Chemical Substances. **EINECS** 

EHS Extremely Hazardous Substance.

**ELINCS** : European List of Notified Chemical Substances.

Globally Harmonized System of Classification and Labeling of Chemicals. GHS

: Hazardous Air Pollutants (Clean Air Act). HAP **HMIS** Hazardous Materials Identification System.

**HNOC** : Hazards Not Otherwise Classified.

: International Agency for Research on Cancer. IARC

IATA International Air Transport Association.

Dangerous Goods Regulations by the "International Air Transport Association" IATA-DGR

(IATA).

**IDLH** : Immediately Dangerous to Life or Health (US National Institute for Occupation Health

and Safety (NIOSH)).

International Maritime Code for Dangerous Goods. **IMDG** 

Intraperitoneal. IΡ IV : Intravenous.

NFPA National Fire Protection Association.

NIOSH National Institute of Occupational Safety and Health.

No Significant Risk Levels. NSRL NTP National Toxicology Program.

Ozone Depleting Substances (US Clean Air Act). ODS

Organization for Economic Co-Operation and Development. OECD

#### Section 16. Other Information

#### Abbreviations and Acronyms (cont.)

OEL : Occupational Exposure Limit.

OSHA : Occupational Safety and Health Administration.

PBT : Persistent Bioaccumulative and Toxic.

PEL : Permissible Exposure Limits.
REL : Recommended Exposure Limits.

RQ : Reportable Quantity.

SARA : Superfund Amendments and Reauthorization Act.

STEL (ST) : Short Term Exposure Limit (ACGIH/NIOSH)

STOT : Specific Target Organ Toxicity.
TLV : Threshold Limit Values (ACGIH).
TPQ : Threshold Planning Quantity.
TWA : Time Weighted Average.
VOC : Volatile Organic Compound.

vPvB : Very Persistent and Very Bioaccumulative.

WEEL : Workplace Environmental Exposure Level (AIHA).

#### **Disclaimer**

The information herein is believed to be accurate and is presented in good faith; however, no warranties or representations are made by Ereztech LLC regarding the accuracy or completeness of the information. Ereztech LLC shall not be liable for any damages resulting from the handling, or from the contact with the above product.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Ereztech Y1294 Page 14 of 14 Revision: 1.00