

# SAFETY DATA SHEET

Date Printed: 05/04/2024

Date Revised: 01/15/2022

---

## SECTION 1. IDENTIFICATION

**Product Identifier:** (5N) 99.999% Yttrium Carbide

**Product Code:** Y-C-05

**CAS Number:** 12071-35-1

**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:  
+1 800-424-9300

---

## SECTION 2. HAZARDS IDENTIFICATION

Statement of Hazard:

Flammable solid, Irritant, Respiratory irritant

Acute Health Hazard:

Irritant to eyes, skin, mucous membranes and respiratory system.

May be harmful by ingestion, skin absorption and inhalation.

Chronic Health Hazard:

Not Available

HMIS Rating:

H: 1

F: 3

P: 1

NFPA Rating:

H: 1

F: 2

R: 1

To the best of our knowledge, the toxicological properties of this chemical have not been thoroughly investigated. Use appropriate procedures and precautions to prevent or minimize exposure.

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):

Acute toxicity, dermal (Category 4), H312

Acute toxicity, inhalation (Category 4), H332

Acute toxicity, oral (Category 4), H302  
Flammable solids (Category 1), H228  
Serious eye damage/eye irritation (Category 2A), H319  
Skin corrosion/irritation (Category 2), H315  
Specific target organ toxicity, single exposure; Respiratory tract irritation (Category 3), H335  
Pictogram:



Signal Word:

Warning

Hazard Statement(s):

H228 Flammable solid.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

Precautionary Statement(s):

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P240 Ground/bond container and receiving equipment.

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

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 IF SWALLOWED: call a POISON CENTER or doctor/physician

IF you feel unwell.

P302+P352 IF ON SKIN: wash with plenty of soap and water.

P304+P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position 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.

P332+P313 IF SKIN irritation occurs: Get medical advice/attention.

---

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name:

Yttrium carbide

Synonyms:

Yttrium dicarbide

Cas number:

12071-35-1

---

## SECTION 4. FIRST AID MEASURES

Eye Contact: Flush eyes with large amounts of water for fifteen minutes. Separate eyelids with fingers. If irritation persists, seek medical attention.

Skin Contact: Wash skin with soap and water. If irritation persists, seek medical attention.

Ingestion: Do not induce vomiting. Seek medical attention.

Inhalation: Move to a fresh air environment. Contact a physician if breathing

becomes difficult.

---

## **SECTION 5. FIREFIGHTING MEASURES**

Flash Point (°C): Not Available

Explosion Limits: Not Available

Auto Ignition Temperature (°C): Not Available

Extinguishing Media: Carbon dioxide, dry chemical powder, alcohol-resistant foam, or water spray

Protective Equipment: Wear self-contained respirator and fully protective impervious suit.

Specific Hazards: May emit hazardous fumes under fire conditions

---

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

Personal Protection:

Wear a self-contained breathing apparatus, rubber boots and gloves, and disposable coveralls.

Dispose of coveralls after use. Remove from ignition sources if safe to do so. Follow emergency response plan and contact proper authorities if needed.

Keep unprotected persons away.

Environmental Protection:

Keep spills out of sewers and bodies of water. Dike and contain the spill with inert material. Absorb on sand, vermiculite or diatomite.

Transfer material to a container for disposal or recovery. Ventilate area and wash spill site after material pickup is complete.

---

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

Handling and Storage:

Avoid breathing dust, vapor, mist or gas. Avoid contact with skin and eyes. Avoid prolonged or repeated exposure. Use only in a chemical fume hood. Open and handle container with care. Keep ignition sources away.

Store in a tightly closed container in a dry, well-ventilated place.

Sensitivities:

Moisture

Storage Temperature (°C):

15 to 30

---

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

Engineering Controls:

Use product in a well ventilated area or under a fume hood. Use proper lab equipment while handling this product. Keep away from incompatible materials for possible risk of hazardous reaction.

Eye Protection:

Wear appropriate protective eyeglass or chemical safety goggles. Make sure that there is an eyewash station in your vicinity.

Skin Protection:

Wear impervious gloves and protective clothing.

Respiratory Protection:

Use a NIOSH approved respirator when exposure limits are exceeded or if irritation or other symptoms are experienced.

---

## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance: Solid  
Odor: Odorless  
Odor Threshold: Not Available  
Flash Point (°C): Not Available  
Auto Ignition Temperature (°C): Not Available  
UEL % by Volume: Not Available  
LEL % by Volume: Not Available  
Melting Point (°C): Not Available  
Boiling Point (°C): Not Available  
Evaporation Rate: Not Available  
pH Value: Not Available  
Density (g/cm³): 4.13  
Refractive Index (n<sup>20</sup>D): Not Available  
Viscosity: Not Available  
Solubility in Water: Not Available  
Solubility in Other: Not Available  
Vapor Pressure (mmHg): Not Available  
Vapor Density (Air=1): Not Available

---

## **SECTION 10. STABILITY AND REACTIVITY**

Stability:  
Stable under normal temperatures and pressures.  
Incompatibility:  
Strong oxidizing agents, Strong acids  
Reactivity:  
Product may react with incompatible materials to release other hazardous substances.  
Conditions to Avoid:  
Heat, flame, sparks, other ignition sources.  
Hazardous Decomposition Products:  
Carbon oxides, Yttrium oxides

---

## **SECTION 11. TOXICOLOGICAL INFORMATION**

RTECS Reference: Not Available  
Target Organs: Not Available  
Toxicity Data: Not Available  
Carcinogenicity:  
National Toxicology Program (NTP) listed: Not Available  
International Agency for Research on Cancer (IARC) listed: Not Available  
Potential Symptoms: Not Available

---

## SECTION 12. ECOLOGICAL INFORMATION

Toxicity:  
Not Available

---

## SECTION 13. DISPOSAL CONSIDERATIONS

Contact a licensed professional waste disposal service. Dispose in a manner consistent with federal, state and local environmental regulations.

---

## SECTION 14. TRANSPORT INFORMATION

UN-Number  
DOT, IMDG, IATA  
UN3178  
UN proper shipping name  
DOT  
Flammable solid, inorganic, n.o.s. (Yttrium carbide)  
IMDG, IATA  
FLAMMABLE SOLID, INORGANIC, N.O.S. (Yttrium carbide)  
Transport hazard class(es)  
DOT  
Class  
4.1 Flammable solids, self-reactive substances and solid desensitised explosives.  
Label  
4.1  
Class  
4.1 (F3) Flammable solids, self-reactive substances and solid desensitised explosives  
Label  
4.1  
IMDG, IATA  
Class  
4.1 Flammable solids, self-reactive substances and solid desensitised explosives.  
Label  
4.1  
Packing group  
DOT, IMDG, IATA  
III  
Environmental hazards:  
Not applicable.  
Special precautions for user  
Warning: Flammable solids, self-reactive substances and solid desensitised explosives  
EMS Number:  
F-A,S-G  
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code  
Not applicable.  
Transport/Additional information:  
DOT  
Marine Pollutant (DOT):  
No  
UN "Model Regulation":

## SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture  
National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

SARA Section 313 (specific toxic chemical listings)

Substance is not listed.

California Proposition 65

Prop 65 - Chemicals known to cause cancer

Substance is not listed.

Prop 65 - Developmental toxicity

Substance is not listed.

Prop 65 - Developmental toxicity, female

Substance is not listed.

Prop 65 - Developmental toxicity, male

Substance is not listed.

Information about limitation of use:

For use only by technically qualified individuals.

Other regulations, limitations and prohibitive regulations

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.

Substance is not listed.

The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.

Substance is not listed.

Annex XIV of the REACH Regulations (requiring Authorisation for use)

Substance is not listed.

REACH - Pre-registered substances

Substance is listed.

Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

---

## 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.