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Manufacturer's CAGE: 1P573

Safety Data Sheet

Date Effective: November 12, 2019

04165-AB SPI-Chem™ P-47 Scintillator Powder for Recoating Scintillators

Section 1.1: Identification

Chemical Name/Synonyms .....

Product or Trade Name ..... P-47 Scintillator Powder

CAS #'s 100403-12-1

Chemical Formula..... Y_2SiO_5:Ce

Section 1.2: Relevant Uses/Restrictions

Luminescent scintillating powder for recoating scintillators.

Section 1.3: Supplier of the Safety Data Sheet

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Section 1.4: Emergency telephone number

Emergencies
Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...
Worldwide phone: 1-(703)-741-5970
Toll-free phone: 1-(800)-424-9300 USA + Canada only

Section 2: Hazard Identification

2.1 Classification of the substance

Not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

GHS: Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

Classification according to regulation (EC) No 1271/2008
Not a hazardous substance.

Classification according to European Directive 67/548/EEC as amended
Not a hazardous substance.

2.2 Label elements

Pictogram - Not applicable.

Signal Word: - Not applicable.

Hazard statements: - Not applicable.

Precautionary statements:
P261: Avoid breathing dust.

Unknown percentage statements (if needed): - Not applicable.

2.3 Other Hazards: None

Section 3: Composition

3.1 Substances:
Component: Cerium doped yttrium silicate - Y_2SIO_5:Ce
CAS number: 100403-12-1
EC number: 309-553-5

3.2 Mixtures: Not applicable

Section 4: First Aid Measures

4.1 Description of first aid measures:

Eye Contact: Irrigate thoroughly with water for at least ten minutes.

Inhalation: Remove from exposure, rest and keep warm. In severe cases, seek medical attention.

Skin Contact: Wash off skin thoroughly with soap and warm water. Remove contaminated clothing and wash before re-use.

Ingestion: Wash out mouth thoroughly with water and give plenty to drink. In severe cases, seek medical attention.

Self-protection of the first aider: No additional

4.2 Most important symptoms and effects, both acute and delayed:
The most important known symptoms and effects are described in the labelling (see Section 2.2) and/or in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed:
No data available.

Section 5: Fire Fighting Measures

5.1 Extinguishing media

Use extinguishing media appropriate to surrounding fire conditions.

5.2 Special hazards arising from the substance: None.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting, if necessary.

Section 6: Accidental Release Measures

6.1 Personal precautions

Wear respiratory protection and avoid dust formation.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Sweep up, place in bag and hold for waste disposal.

6.4 Reference to other sections

For disposal see Section 13.

Section 7: Handling and Storage

7.1 Precautions for safe handling

Prevent accumulation of dust, provide appropriate exhaust ventilation at places where dust is formed.
For precautions see Section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

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

7.3 Specific end uses

Luminescent scintillating powder for recoating scintillators.

This material not being offered for clinical or diagnostic applications, agricultural uses or for human or animal consumption.

Section 8: Exposure Controls and Personal Protection

8.1 Control parameter and Personal Protection

UK EH40 Workplace Exposure Limit: Long (8-hour TWA) – 4 mg/m^3

Biological limit values: No data available.

8.2 Exposure controls

As appropriate to the quantity handled.

Respirator: Dust mask with suitable filter
Hands: Rubber or plastic gloves
Eye Protection: Goggles or face shield.
Othe Protection: Suitable protective clothing
Ventilation: Fume cupboard or local exhaust ventilation

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance: White powder

Odor: Odorless

Odor threshold: Not available

pH: Not available

Melting point/Freezing point: >2000 °C

Boiling point/Boiling point range: No data available

Flash Point: No data available

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: 4.4 gcm^{-3}

Solubility: insoluble

Partition coefficient (n-octanol/water): No data available

auto-ignition temperature: No data available

Decomposition temperature: No data available

Viscosity: Not applicable

Explosive properties: No data available

Oxidizing Properties: No data available

9.2 Other information – No data available.

Section 10: Stability and Reactivity

10.1 Reactivity – No data available.

10.2 Chemical Stability – Stable under recommended storage conditions.

10.3 Possibility of Hazardous Reactions – No data available.

10.4 Conditions to avoid – No data available.

10.5 Incompatible materials – No data available.

10.6 Hazardous decomposition products – No data available

Section 11: Toxicological Information

Information on the likely routes of exposure

11.1 Information on toxicological effects

a. acute toxicity - No data available
b. skin corrosion/irritation – No data available
c. serious eye damage/irritation – No data available
d. respiratory of skin sensitization – No data available
e. germ cell mutagenicity – No evidence of mutagenic properties
f. carcinogenicity – No evidence of carcinogenic properties.
g. reproductive toxicity – No evidence of teratogenic properties.
h. STOT-single exposure – No data available.
I. STOT-repeated exposure – No data available.
j. aspiration hazard – No data available.

Section 12: Ecological Information

12.1 Toxicity – No data available.
12.2 Persistence and degradability – No data available.
12.3 Bio-accumulative 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.

Section 13: Disposal Considerations

13.1 Waste treatment methods

Chemical residues are generally classified as special waste, and as such are covered by regulations that vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company.

Section 14: Transport Information

DOT – Not regulated as a hazardous material.
IATA – Not regulated as a hazardous material.
IMDG – Not regulated as a hazardous material.

14.1 UN number – Not applicable
14.2 UN proper shipping name – Not applicable
14.3 Transport hazard class(es)- Not applicable
14.4 Packing Group – Not applicable

14.5 Environmental hazards – Not applicable
14.6 Special precautions for user – Not applicable

Section 15: Regulatory Information

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

This safety datasheet complies with the requirements of Commission Regulation (EU) No. 453/2010.

OSHA specifically regulated substances – No data available.
TSCA Active Inventory List:
Y_2SiO_5, CAS # 12027-88-2, is listed on the TSCA Active Inventory List.
EU regulations- No data available
EPCRA/SARA Right to Know – No data available
Authorizations and/or restrictions on use – No data available
State regulations – No data available
Other EU regulations – No data available
VOC Guidelines – No data available
National regulations – No data available

15.2 Chemical Safety Assessment – For this product a chemical safety assessment was not carried out.

Other information:
Date of preparation 12 November 2019

Abbreviations and acronyms
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
CMRG: Chemical Manufacturer's Recommended Guidelines
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
AIHA: American Industrial Hygiene Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bio-accumulative and Toxicological
vPvB: very Persistent and very Bio-accumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
STEL: Short Term Exposure Limit
CEIL: Ceiling
LOLI: The Registered Chemicals List of Lists

Section 16: Other Information

Disclaimer of Liability:

Caution! Do not use SPI Supplies products or materials in applications involving implantation within the body;

direct or indirect contact with the blood pathway; contact with bone, tissue, tissue fluid, or blood; or prolonged contact with mucous membranes. Products offered by SPI Supplies are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. SPI Supplies will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by US FDA (Food and Drug Administration) regulation or any other statute. SPI Supplies and Structure Probe, Inc. make no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues of fluids.

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