

SAFETY DATA SHEET

Section 1. Identification

Manufacturer

Polymeric Systems, Inc.
47 Park Avenue
Elverson, PA 19520
Tel: (610) 286-2500
Fax: (610) 286-2510
Web: polymericystems.com

Supplier

Polymeric Systems, Inc.
47 Park Avenue
Elverson, PA 19520
Tel: (610) 286-2500
Fax: (610) 286-2510
Web: polymericystems.com

Emergency telephone number

(610)286-2500 (24 Hours) Chemtrec Contract No.: 17567

Product name

QUIKTITANIUM -24 CT. 7

Code

FG600478055-24

Specific uses

Sealants and adhesives

Section 2. Hazards identification

OSHA/HCS status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2B
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1A

GHS label elements

Hazard pictograms



Signal word

Danger

Hazard statements

Causes skin and eye irritation.
May cause an allergic skin reaction.
May cause cancer.

Precautionary statements

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Avoid breathing dust. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.

Response

IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

Store locked up.

Disposal

Dispose of contents and container in accordance with all local, regional, national and international regulations.

Section 2. Hazards identification

Hazards not otherwise classified None known.

Section 3. Composition/information on ingredients

Substance/mixture Mixture

| Ingredient name | % by weight | CAS number |
|---|-------------|------------|
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin | 10 - 30 | 25068-38-6 |
| crystalline silica non-respirable | 0.1 - 1 | 14808-60-7 |

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

Section 4. First aid measures

Description of necessary first aid measures

| | |
|---------------------|---|
| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not 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 attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Skin contact | Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Eye contact | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. |
| Ingestion | Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |

Most important symptoms/effects, acute and delayed

Potential acute health effects

| | |
|---------------------|--|
| Inhalation | No known significant effects or critical hazards. |
| Skin contact | Causes skin irritation. May cause an allergic skin reaction. |
| Eye contact | Causes serious eye irritation. |
| Ingestion | Irritating to mouth, throat and stomach. |

Over-exposure signs/symptoms

| | |
|---------------------|--|
| Inhalation | No specific data. |
| Skin contact | Adverse symptoms may include the following: irritation redness |
| Eye contact | Adverse symptoms may include the following: pain or irritation watering redness |

Section 4. First aid measures

Ingestion No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments No specific treatment.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media None known.

Specific hazards arising from the chemical No specific fire or explosion hazard.

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



Hazardous thermal decomposition products Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides
halogenated compounds
metal oxide/oxides

Special protective actions for fire-fighters 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.

Special protective equipment for fire-fighters Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in 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. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders If specialised 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 Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Section 6. Accidental release measures

Methods and materials for containment and cleaning up

Small spill

Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill

Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities

Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Precautions for safe handling

Protective measures

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on 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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | CAS # | Exposure limits |
|-----------------------------------|------------|--|
| crystalline silica non-respirable | 14808-60-7 | <p>OSHA PEL Z3 (United States, 9/2005). Notes: 250/(%SiO₂+5) TWA: 250 MPPCF / (%SiO₂+5) 8 hours. Form: Respirable</p> <p>OSHA PEL Z3 (United States, 9/2005). Notes: 10/(SiO₂+2) TWA: 10 MG/M³ / (%SiO₂+2) 8 hours. Form: Respirable</p> <p>ACGIH TLV (United States, 3/2012). TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction</p> <p>NIOSH REL (United States, 1/2013). TWA: 0.05 mg/m³ 10 hours. Form: respirable dust</p> <p>OSHA PEL Z3 (United States, 9/2005). Notes: 30/(%SiO₂+2) TWA: 30 MG/M³ / (%SiO₂+2) 8 hours. Form: Total dust.</p> |

Appropriate engineering controls

If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Section 8. Exposure controls/personal protection

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. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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.

Body protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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.

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 liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Section 9. Physical and chemical properties

Physical state

Solid.

Color

Brownish-White.

Odor

Pungent.-Sulfurous. [Strong]

Odor threshold

Not available.

pH

Not applicable.

Melting point

Not available.

Boiling point

Not available.

Flash point

Closed cup: >93.3°C (>199.9°F) [Setaflash.] [Product does not sustain combustion.]

Evaporation rate

Not applicable.

Flammability (solid, gas)

Extremely flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.

Lower and upper explosive (flammable) limits

Not available.

Vapor pressure

Not available.

Vapor density

Not available.

Relative density

1.947

Section 9. Physical and chemical properties

| | |
|----------------------------------|---|
| Solubility | Easily soluble in the following materials: methanol and acetone. Insoluble in the following materials: cold water and hot water. |
| Solubility in water | Not applicable. |
| Auto-ignition temperature | Not available. |
| Decomposition temperature | >220°C (>428°F) |
| Viscosity | Kinematic (room temperature): Not applicable. Kinematic (40°C (104°F)): Not applicable. |

Section 10. Stability and reactivity

| | |
|---|--|
| Reactivity | No specific test data related to reactivity available for this product or its ingredients. |
| Chemical stability | The product is stable. |
| Possibility of hazardous reactions | Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | No specific data. |
| Incompatible materials | No specific data. |
| Hazardous decomposition products | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

No specific data.

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|--------------------------|---------|-------|--------------------------|-------------|
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin | Eyes - Mild irritant | Rabbit | - | 100 milligrams | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 microliters | - |
| | Skin - Severe irritant | Rabbit | - | 24 hours 2 milligrams | - |

Sensitization

No specific data.

Mutagenicity

No specific data.

Carcinogenicity

No specific data.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-----------------------------------|------|------|---------------------------------|
| crystalline silica non-respirable | - | 1 | Known to be a human carcinogen. |

Reproductive toxicity

No specific data.

Section 11. Toxicological information

Teratogenicity

No specific data.

Specific target organ toxicity (single exposure)

No specific data.

Specific target organ toxicity (repeated exposure)

No specific data.

Aspiration hazard

No specific data.

Information on the likely routes of exposure

Not available.

Potential acute health effects

Eye contact

Causes serious eye irritation.

Inhalation

No known significant effects or critical hazards.

Skin contact

Causes skin irritation. May cause an allergic skin reaction.

Ingestion

Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact

Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation

No specific data.

Skin contact

Adverse symptoms may include the following:
irritation
redness

Ingestion

No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects

Not available.

Potential delayed effects

Not available.

Long term exposure

Potential immediate effects

Not available.

Potential delayed effects

Not available.

Potential chronic health effects

No specific data.

General

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity

May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity

No known significant effects or critical hazards.

Teratogenicity

No known significant effects or critical hazards.

Developmental effects

No known significant effects or critical hazards.

Fertility effects

No known significant effects or critical hazards.

Section 11. Toxicological information

Numerical measures of toxicity

Acute toxicity estimates

No specific data.

Section 12. Ecological information

Toxicity

No specific data.

Persistence and degradability

No specific data.

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|---|--------------------|-----|-----------|
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin | 2.64 to 3.78 | 31 | low |

Mobility in soil

Soil/water partition coefficient (K_{oc})

Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

RCRA classification

Not available.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IMDG | IATA |
|-------------------------|--------------------|--------------------|-----------------------|----------------|----------------|
| UN Number | Not regulated. | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| UN proper shipping name | - | - | - | - | - |
| | | | | | |

Section 14. Transport information

| | | | | | |
|----------------------------|--|-----|-----|-----|-----|
| Transport hazard class(es) | - | - | - | - | - |
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | No. |
| Additional information | <p>Reportable quantity 19342.4 lbs / 8781.4 kg Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.</p> | - | - | - | - |

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

U.S. Federal regulations

TSCA 8(a) PAIR: nonylphenol
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): Not determined.
Clean Water Act (CWA) 307: zinc sulphide

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) Not listed

Clean Air Act Section 602 Class I Substances Not listed

Clean Air Act Section 602 Class II Substances Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ Not applicable.

SARA 311/312

Classification Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Section 15. Regulatory information

| Name | % | Fire hazard | Sudden release of pressure | Reactive | Immediate (acute) health hazard | Delayed (chronic) health hazard |
|---|---------|-------------|----------------------------|----------|---------------------------------|---------------------------------|
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin | 10 - 30 | No. | No. | No. | Yes. | No. |
| crystalline silica non-respirable | 0.1 - 1 | No. | No. | No. | No. | Yes. |

SARA 313

| | Product name | CAS number | % |
|--|---------------|------------|--------|
| Form R - Reporting requirements | zinc sulphide | 1314-98-3 | 5 - 10 |

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts

The following components are listed: SOAPSTONE

New York

None of the components are listed.

New Jersey

The following components are listed: SOAPSTONE; SILICA, QUARTZ; QUARTZ (SiO₂); TITANIUM; ZINC compounds

Pennsylvania

The following components are listed: SOAPSTONE DUST; QUARTZ (SiO₂); ZINC COMPOUNDS

Minnesota Hazardous Substances

None of the components are listed.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

| Ingredient name | Cancer | Reproductive | No significant risk level | Maximum acceptable dosage level |
|--|--------|--------------|---------------------------|---------------------------------|
| Talc , not containing asbestiform fibres | Yes. | No. | No. | No. |
| crystalline silica non-respirable | Yes. | No. | No. | No. |
| carbon black non-respirable | Yes. | No. | No. | No. |

Canada inventory

Not determined.

International regulations

International lists

Australia inventory (AICS): Not determined.

China inventory (IECSC): Not determined.

Japan inventory: Not determined.

Korea inventory: Not determined.

Malaysia Inventory (EHS Register): Not determined.

New Zealand Inventory of Chemicals (NZIoC): Not determined.

Philippines inventory (PICCS): Not determined.

Taiwan inventory (CSNN): Not determined.

Substances of very high concern

None of the components are listed.

Section 16. Other information

Key to abbreviations

ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References

Not available.

✔ Indicates information that has changed from previously issued version.

Notice to reader

NON-WARRANTY: The information presented in this publication is based upon the research and experience of Whitford. No representation or warranty is made, however, concerning the accuracy or completeness of the information presented in this publication. Whitford makes no warranty or representation of any kind, express or implied, including without limitation any warranty of merchantability or fitness for any particular purpose, and no warranty or representation shall be implied by law or otherwise. Any products sold by Whitford are not warranted as suitable for any particular purpose to the buyer. The suitability of any products for any purpose particular to the buyer is for the buyer to determine. Whitford assumes no responsibility for the selection of products suitable to the particular purposes of any particular buyer. Whitford shall in no event be liable for any special, incidental, or consequential damages.