

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

QUICKCOPPER - 24 CT 7

Code

FG600462550-24

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 SENSITIZATION - Category 1

GHS label elements

Hazard pictograms



Signal word

Warning!

Hazard statements

May cause an allergic skin reaction.

Precautionary statements

Prevention

Wear protective gloves. Avoid breathing dust. Contaminated work clothing should not be allowed out of the workplace.

Response

IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.

Storage

Not applicable.

Disposal

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

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 | 5 - 10 | 25068-38-6 |
| 2,4,6-tris(dimethylaminomethyl)phenol | 1 - 5 | 90-72-2 |
| 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 adverse health effects persist or are severe. 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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| 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 if irritation occurs. |
| 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 if adverse health effects persist or are severe. 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 | Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. |
| Skin contact | May cause an allergic skin reaction. |
| Eye contact | No known significant effects or critical hazards. |
| Ingestion | No known significant effects or critical hazards. |

Over-exposure signs/symptoms

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

Section 4. First aid measures

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

| | |
|----------------------------|---|
| Notes to physician | In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| 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
 nitrogen oxides
 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).

Methods and materials for containment and cleaning up

Section 6. Accidental release measures

Small spill

Move containers from spill area. Avoid dust generation. Using a vacuum with HEPA filter will reduce dust dispersal. 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. 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. Do not get in eyes or on skin or clothing. Do not ingest. 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

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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

Section 8. Exposure controls/personal protection

| | |
|-------------------------------|--|
| 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: safety glasses with side-shields. |

Section 9. Physical and chemical properties

| | |
|---|---|
| Physical state | Solid. |
| Color | Metallic. Brown.-Beige. [Light] |
| 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) | Not available. |
| Lower and upper explosive (flammable) limits | Not available. |
| Vapor pressure | Not available. |
| Vapor density | Not available. |
| Relative density | 1.962 |
| 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) |

Section 9. Physical and chemical properties

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

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|-------------|---------|--------------|----------|
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin | LD50 Dermal | Rabbit | 23000 mg/kg | - |
| 2,4,6-tris(dimethylaminomethyl)phenol | LD50 Oral | Rat | >15000 mg/kg | - |
| | LD50 Dermal | Rat | 1280 mg/kg | - |
| | LD50 Oral | Rat | 1200 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|--------------------------|------------------------------|-------|------------------------|-------------|
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin | Eyes - Moderate irritant | Mammal - species unspecified | - | - | - |
| | Skin - Moderate irritant | Mammal - species unspecified | - | - | - |
| 2,4,6-tris(dimethylaminomethyl)phenol | Eyes - Severe irritant | Rabbit | - | 24 hours 50 Micrograms | - |
| | Skin - Mild irritant | Rat | - | 0.025 Milliliters | - |
| | Skin - Severe irritant | Rat | - | 0.25 Milliliters | - |
| | Skin - Severe irritant | Rabbit | - | 24 hours 2 milligrams | - |

Sensitization

| Product/ingredient name | Route of exposure | Species | Result |
|---|-------------------|---------|-------------|
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin | skin | Human | Sensitizing |

Mutagenicity

No specific data.

Carcinogenicity

Section 11. Toxicological information

No specific data.

Conclusion/Summary :

This product contains talc in a polymer matrix. Sanding the cured product may release particles containing talc with the polymer and other components of the matrix into the air. The talc contains less than 1% crystalline silica. Appropriate evaluations of the use of the product should be performed to determine if exposure to talc occurs due to handling and use. If such exposures occur, appropriate precautions must be taken to prevent exposure in excess of the OSHA Permissible Exposure Limit (PEL).

Classification

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

Reproductive toxicity

No specific data.

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

No known significant effects or critical hazards.

Inhalation

Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact

May cause an allergic skin reaction.

Ingestion

No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact

No specific data.

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

Section 11. Toxicological information

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 No known significant effects or critical hazards.

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.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|--------|---------------|
| Oral | 6206.8 mg/kg |
| Dermal | 39007.2 mg/kg |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|-----------------------|----------------|----------|
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin | EC50 11 mg/l | Aquatic plants | 72 hours |
| | EC50 1.8 mg/l | Daphnia | 48 hours |
| | LC50 2 mg/l | Fish | 96 hours |
| | Chronic NOEC 0.3 mg/l | Daphnia | - |

Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|---|---|----------------|------|----------|
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin | OECD 302B 302B Inherent Biodegradability: Zahn-Wellens/ EMPA Test | 12 % - 28 days | - | - |

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|-------------------|------------|------------------|
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin | - | - | Not readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|---------------------------------------|--------------------|-----|-----------|
| 2,4,6-tris(dimethylaminomethyl)phenol | 0.219 | - | low |

Mobility in soil

Section 12. Ecological information

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 applicable.

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 | - | - | - | - | - |
| Transport hazard class(es) | - | - | - | - | - |
| Packing group | - | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. | No. |
| 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

U.S. Federal regulations TSCA 8(a) PAIR: Siloxanes and Silicones, di-Me, reaction products with silica
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 307: CopperFlakes

Section 15. Regulatory information

Clean Air Act Section 112 Listed

(b) Hazardous Air Pollutants (HAPs)

Clean Air Act Section 602 Not listed

Class I Substances

Clean Air Act Section 602 Not listed

Class II Substances

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ Not applicable.

SARA 311/312

Classification Immediate (acute) health hazard

Composition/information on ingredients

| Name | % | Fire hazard | Sudden release of pressure | Reactive | Immediate (acute) health hazard | Delayed (chronic) health hazard |
|---|---------|-------------|----------------------------|----------|---------------------------------|---------------------------------|
| reaction product: bisphenol-A-(epichlorhydrin); epoxy resin | 5 - 10 | No. | No. | No. | Yes. | No. |
| 2,4,6-tris(dimethylaminomethyl)phenol | 1 - 5 | 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 | CopperFlakes | 7440-50-8 | 1 - 5 |

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; MINERAL WOOL FIBER; COPPER

New York

The following components are listed: Copper

New Jersey

The following components are listed: SOAPSTONE; SILICA, QUARTZ; QUARTZ (SiO₂); COPPER

Pennsylvania

The following components are listed: SOAPSTONE DUST; QUARTZ (SiO₂); COPPER FUME

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 crystalline silica non-respirable | Yes. Yes. | No. No. | No. No. | No. No. |

Canada inventory

All components are listed or exempted.

International regulations

Section 15. Regulatory information

International lists

Australia inventory (AICS): All components are listed or exempted.

China inventory (IECSC): All components are listed or exempted.

Japan inventory: Not determined.

Korea inventory: All components are listed or exempted.

Malaysia Inventory (EHS Register): Not determined.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

Philippines inventory (PICCS): All components are listed or exempted.

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

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