

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: POLYESTER TGIC
Product Code: PE
Manufacturer: Fam Powder Coating Ltd.
Address: 7171 Torbram Road, Unit# 46-47, Mississauga, ON. L4T 3W4, Canada
Information Phone: Tel: [+1-905-956-3424](tel:+19059563424) Fax: [+1-416-860-3425](tel:+14168603425)

2. HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Finely divided powder

IMMEDIATE CONCERNS: Do not breathe dust, may cause respiratory tract irritation. May cause skin or eye irritation. Do not swallow. Do not generate dust clouds.

. GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

. Hazard pictograms



Signal word *Danger*

Hazard-determining components of labeling:

- triglycidyl isocyanurate

Hazard statements

- H318 Causes serious eye damage.
- H317 May cause an allergic skin reaction.
- H340 May cause genetic defects.
- H373 May cause damage to organs through prolonged or repeated exposure.
- May form combustible dust concentrations in air.

Precautionary statements

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe dust.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P302+P352 If on skin: Wash with plenty of water.
- P310 Immediately call a poison center/doctor.
- P308+P313 If exposed or concerned: Get medical advice/attention.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P402+P404 Store in a dry place. Store in a closed container.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/International regulations.

. Chemical safety assessment: A Chemical Safety Assessment has not been carried out.



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POTENTIAL HEALTH EFFECTS

EYES: Mildly irritating to the eyes.

SKIN: Is not expected to cause skin irritation.

INGESTION: Not hazardous in normal industrial use. Wash hands before eating drinking or smoking.

INHALATION: Temporary discomfort to the upper respiratory tract may occur due to mechanical irritation.

ROUTES OF ENTRY: Eyes, inhalation.

TARGET ORGANS: Eyes, respiratory tract.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Characterization: Mixtures

Description: Mixture consisting of the following components with harmless additives.

| . Hazardous ingredients: | | |
|--------------------------|--------------------------|---------|
| 13463-67-7 | titanium dioxide | 10-25% |
| 21645-51-2 | aluminium hydroxide | 10-25% |
| 7727-43-7 | barium sulphate, natural | 10-25% |
| 2451-62-9 | triglycidyl isocyanurate | 2.5-10% |

Additional information: For the wording of the listed risk phrases refer to section 16.

4. FIRST AID MEASURES

. Description of first aid measures

. General information No special measures required.

. After inhalation Supply fresh air; consult doctor in case of symptoms.

. After skin contact Instantly wash with water and soap and rinse thoroughly.

. After eye contact Rinse opened eye for several minutes under running water.

. After swallowing In case of persistent symptoms consult doctor.

. Information for doctor

. Most important symptoms and effects, both acute and delayed

No further relevant information available.

. Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5. FIRE-FIGHTING MEASURES

Extinguishing Media:

Suitable extinguishing agents

CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol resistant foam.

Advice for firefighters

Protective equipment: No special measures required

Special hazards arising from the substance or mixture

No further relevant information available.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- Wear protective equipment. Keep unprotected persons away.
- Avoid causing dust.

Environmental precautions: Do not allow product to reach sewage system or water bodies.

Methods and material for containment and cleaning up: Collect mechanically.

Reference to other sections No dangerous materials are released.



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- See Section 7 for information on safe handling
- See Section 8 for information on personal protection equipment.
- See Section 13 for information on disposal.

Protective Action Criteria for Chemicals

| . PAC-1: | | |
|-----------------|--------------------------------------|------------------------|
| 13463-67-7 | aluminium oxide | 15 mg/m ³ |
| 112926-00-8 | Silicon dioxide | 18 mg/m ³ |
| 13463-67-7 | titanium dioxide | 30 mg/m ³ |
| 21645-51-2 | aluminium hydroxide | 8.7 mg/m ³ |
| 7727-43-7 | barium sulphate, natural | 15 mg/m ³ |
| 7631-86-9 | silicon dioxide, chemically prepared | 18 mg/m ³ |
| 1314-23-4 | zirconium dioxide | 14 mg/m ³ |
| 471-34-1 | calcium carbonate | 45 mg/m ³ |
| 14808-60-7 | quartz (SiO ₂) | 0.075 mg/m |
| . PAC-2: | | |
| 13463-67-7 | aluminium oxide | 170 mg/m ³ |
| 112926-00-8 | Silicon dioxide | 200 mg/m ³ |
| 13463-67-7 | titanium dioxide | 330 mg/m ³ |
| 21645-51-2 | aluminium hydroxide | 73 mg/m ³ |
| 7727-43-7 | barium sulphate, natural | 170 mg/m ³ |
| 7631-86-9 | silicon dioxide, chemically prepared | 740 mg/m ³ |
| 1314-23-4 | zirconium dioxide | 110 mg/m ³ |
| 471-34-1 | calcium carbonate | 210mg/m ³ |
| 14808-60-7 | quartz (SiO ₂) | 33 mg/m |
| . PAC-3: | | |
| 13463-67-7 | aluminium oxide | 990 mg/m ³ |
| 112926-00-8 | Silicon dioxide | 1200 mg/m ³ |
| 13463-67-7 | titanium dioxide | 2000 mg/m ³ |
| 21645-51-2 | aluminium hydroxide | 440 mg/m ³ |
| 7727-43-7 | barium sulphate, natural | 990 mg/m ³ |
| 7631-86-9 | silicon dioxide, chemically prepared | 4500mg/m ³ |
| 1314-23-4 | zirconium dioxide | 680 mg/m ³ |
| 471-34-1 | calcium carbonate | 1300mg/m ³ |

7. HANDLING AND STORAGE

Handling

Precautions for safe handling

No special measures required.

Store in cool, dry place in tightly closed containers.

Prevent formation of dust.

Information about protection against explosions and fires:

No special measures required.

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Keep ignition sources away - Do not smoke.

Dust can combine with air to form an explosive mixture.
 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and containers:

- Store only in the original container.
- Static charges may build up in the powder

Information about storage in one common storage facility:

Not required.

Further information about storage conditions:

None.

Specific end use(s)

No further relevant information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Persons with a history of respiratory problems or allergic responses should only be exposed to, or handle, this product under appropriate medical supervision.

Exposure Controls:

Avoid the inhalation of dusts. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of dusts below the relevant occupational exposure limit, suitable respiratory protective equipment should be worn (see 'Occupational Exposure Controls' below).

Additional information about design of technical systems: No further data; see item 7.

Components with critical values that require monitoring at the workplace:

13463-67-7 titanium dioxide

TLV (U.S.A)

Long term value: 10 mg/m³

*inhalable fraction ; E

EL (Canada)

Long term value: 10* 3** mg/m³

*total dust **respirable fraction

REL (U.S.A)

See Pocket Guide App. A

PEL (U.S.A)

Long term value: 15* mg/m³

*total dust

LMPE (Mexico)

Long-term value: 10 mg/m³



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A4

EV (Canada)

Long term value: 10 mg/m³
total dust

7727-43-7 barium sulphate, natural

LMPE (Mexico)

Long term value: 10 mg/m³

TLV (U.S.A)

Long term value: 5 mg/m³
*inhalable fraction ; E

EL (Canada)

Long term value: 5 mg/m³
inhalable

REL (U.S.A)

Long term value: 10* 5** mg/m³
*total dust **respirable fraction

PEL (U.S.A)

Long term value: 15* 5** mg/m³
*total dust **respirable fraction

EV (Canada)

Long term value: 10 mg/m³
total dust

21645-51-2 aluminium hydroxide

TLV (U.S.A)

Long term value: 1mg/m³
as Al; as respirable fraction

EL (Canada)

Long term value: 10 mg/m³

REL (U.S.A)

Long term value: 2 mg/m³
as Al



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12001-26-2 mica

LMPE (Mexico)

Long term value: 3 mg/m³

TLV (U.S.A)

Long term value: 3 mg/m³

*as respirable fraction

EL (Canada)

Long term value: 3 mg/m³

REL (U.S.A)

Long term value: 3 mg/m³

PEL (U.S.A)

Long term value: 20 mppcf ppm

*total dust **respirable fraction

7429-90-5 aluminum powder (stabilized)

EV (Canada)

Long term value: 0.05 mg/m³

TLV (U.S.A)

Long term value: 0.05 mg/m³ as Al

EL (Canada)

Long term value: 0.05 mg/m³

R

LMPE (Mexico)

Long term value: 0.05 mg/m³ A4

Occupational Exposure Controls

All personal protective equipment, including respiratory protective equipment, used to control exposure to hazardous substances must be selected to meet the requirements of the COSHH Regulations

Respiratory Protection:



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Air-fed respiratory protective equipment (to EN 149) should be worn when this product is sprayed if the exposure of the sprayer or other people nearby cannot be controlled to below the occupational Exposure Limit Values and engineering controls and methods cannot reasonably be improved.

Hand Protection:

When skin exposure may occur, advice should be sought from glove suppliers on appropriate types and usage times for this product. The instructions and information provided by the glove supplier on use, storage, maintenance and replacement must be followed. Hand protection should conform to EN 388. Barrier creams may help to protect exposed areas of skin, but are not substitutes for full physical protection. They should not be applied once exposure has occurred.

Eye Protection:

Eye protection (to EN 166/170) designed to protect against exposure to dusts should be worn when there is a likelihood of exposure.

Skin Protection:

Cotton or cotton/synthetic overalls or coveralls compliant with EN 340 are normally suitable. Care should be taken in the selection of protective clothing to ensure that inflammation and irritation of the skin at the neck and wrists through contact with the powder is avoided. Regular skin inspection of users of this product is recommended.

Always wash your hands before eating, smoking or using the toilet.

Environmental exposure control: See Section 12 for detailed information

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---------------------------------------|------------------------|------------------------|
| Physical state: | fine powder | |
| Specific gravity: | 1.5±0.05 | method: [Displacement] |
| Minimum explosive concentration (LEL) | 20-70 g/m ³ | method: |
| Solubility in water: | insoluble | |
| Minimum ignition temperature | 400 °C | method: |
| Minimum ignition energy | 5-20 mJ | method: |

10. STABILITY AND REACTIVITY

Reactivity

Chemical stability

| | |
|--|--|
| Conditions to be avoided: | No decomposition if used according to specifications. |
| Possibility of hazardous reactions: | No dangerous reactions known. |
| Conditions to avoid: | No further relevant information available. |
| Incompatible materials: | No further relevant information available. |
| Hazardous decomposition products: | In case of fire: CO, CO ₂ , NO _x |

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

. Acute toxicity:

| |
|--|
| . LD/LC50 values that are relevant for classification: |
|--|



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| | | |
|---|----------|--------------------|
| Oral | LD50 | >2,000 mg/kg (rat) |
| 2451-62-9 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione | | |
| Oral | LD50 | 715 mg/kg (rat) |
| Dermal | LD50 | >2,000 mg/kg (rat) |
| Inhalative | LC50/4 h | 0.65 mg/l (rat) |

EYE EFFECTS: Dust may be irritating to the eyes

GENERAL COMMENTS:

Triglycidylisocyanurate - Over exposure to this product may cause eye and skin irritation and skin sensitization in susceptible individuals. TGIC gives a positive response in the Ames, mouse lymphoma and mouse spermatoginal (inhalation) assays and a negative response in the following assays: oral spermatocyte aberration (mouse): oral dominant lethal (TIF-AG and ICR); inhalation dominant lethal (CD-1) and intraperitoneal spot test (mouse). Studies in a powder coating containing 4-6% TGIC prepared by normal commercial production techniques gave the following result. Not irritating to the eyes and skin, not sensitizing (skin): Ames test: negative: chromosomal aberrations (mouse) negative (oral) at less than or equal to 5000mg/kg; negative (inhalation) less than or equal to 2000 mg/kg. The manufacturer of TGIC currently recommends a TLV-STEL of 0.08mg/ m3. A valid industrial method for determining TGIC now exists. It is recommending that workers exposed to TGIC containing powders wear respiratory protection and other personal protective equipments as described in section 8.

Carcinogenic Categories

| | | |
|--|--------------------------------------|----|
| NTP (National Toxicology Program) | | |
| 14808-60-7 | quartz (SiO ₂) | K |
| OSHA-Ca (Occupational Safety & Health Administration) | | |
| None of the ingredients is listed. | | |
| IARC (International Agency for Research on Cancer) | | |
| 13463-67-7 | titanium dioxide | 2B |
| 7631-86-9 | silicon dioxide, chemically prepared | 3 |
| 1309-37-1 | diiron trioxide | 3 |
| 14808-60-7 | quartz (SiO ₂) | 1 |

12. ECOLOGICAL INFORMATION

There is no data available on the product itself. The product should not be allowed to enter drains or watercourses or be deposited where it can affect ground or surface waters.

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability No further relevant information available.

Behaviour in environmental systems:

Bio accumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information:

General notes:

- Water hazard class 1 (Self-assessment): slightly hazardous for water.
- Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.



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Other adverse effects

No further relevant information available.

13. Disposal considerations

Waste treatment methods

- Recommendation Smaller quantities can be disposed with household garbage.

Uncleaned packaging:

- Recommendation: Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

Transport within the 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.

External Transport

This product is not classified as dangerous for carriage.

US Ground (DOT)

Not Regulated for Transportation.

Canada (TDG)

Not Regulated for Transportation.

IMO

Not Regulated for Transportation.

IATA/ICAO

Not Regulated for Transportation.

UN-Number. ADR N/A.

UN proper shipping name N/A.

Packing group. ADR, IMDG, IATA N/A.

Environmental hazards:

Marine pollutant: No.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

U.S Surface Freight Class: 55

Bulk Freight Class: 55

Label: None

Other shipping information: not regulated

15. REGULARITY INFORMATION

. SARA (Superfund Amendments and Reauthorization Act) :

| | | |
|--|--------------------------------------|--------|
| Section 355 (Extremely hazardous substances) : | | |
| None of the ingredients is listed. | | |
| Section 313 (Specific toxic chemical listings): | | |
| 7727-43-7 | barium sulphate, natural | |
| 7429-90-5 | aluminum powder (stabilized) | |
| 1344-28-1 | aluminium oxide | |
| TSCA (Toxic Substances Control Act): | | |
| 21645-51-2 | aluminium hydroxide | ACTIVE |
| 13463-67-7 | titanium dioxide | ACTIVE |
| 7727-43-7 | barium sulphate, natural | ACTIVE |
| 2451-62-9 | triglycidyl isocyanurate | ACTIVE |
| 7631-86-9 | silicon dioxide, chemically prepared | ACTIVE |



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| | | |
|-----------|-------------------|--------|
| 1332-58-7 | kaolin | ACTIVE |
| 1344-28-1 | aluminium oxide | ACTIVE |
| 119-53-9 | Benzoin | ACTIVE |
| 1314-23-4 | zirconium oxide | ACTIVE |
| 471-34-1 | calcium carbonate | ACTIVE |

. Proposition 65:

| | | |
|---|------------------|--|
| Chemicals known to cause cancer | | |
| 13463-67-7 | titanium dioxide | |
| Chemicals known to cause reproductive toxicity for females | | |
| None of the ingredients is listed. | | |
| Chemicals known to cause reproductive toxicity for males: | | |
| None of the ingredients is listed. | | |
| Chemicals known to cause developmental toxicity: | | |
| None of the ingredients is listed. | | |

. Cancerogenity categories

| | | |
|---|----------------------------|-----------------------|
| . EPA (Environmental Protection Agency) | | |
| 7727-43-7 | barium sulphate, natural | D, CBD(inh), NL(oral) |
| TLV (Threshold Limit Value established by ACGIH) | | |
| 13463-67-7 | titanium dioxide | A4 |
| 1332-58-7 | kaolin | A4 |
| 1344-28-1 | aluminium oxide | A4 |
| 1314-23-4 | zirconium dioxide | A4 |
| 14808-60-7 | quartz (SiO ₂) | A2 |
| NIOSH-Ca (National Institute for Occupational Safety and Health) | | |
| 13463-67-7 | titanium dioxide | |
| 14808-60-7 | quartz (SiO ₂) | |

16. OTHER INFORMATION

NEPA CODES

Fire: 1 Health: 2 Reactivity: 1 Special: 0

HMIS CODES:

Fire: 2 Health: 1 Reactivity: 1 Special: 0

MANUFACTURER DISCLAIMER:

All the information herein is to the best of our knowledge true and accurate. However, since we have no control on how our products are shipped. Stored, handled or used we make no guarantee of results and will not be held liable for any damages incurred. All chemicals should be used with caution and we make no guarantee that others hazards may not be present. It is the responsibility of the user to ensure all local, state and federal regulations are complied with.