

Safety Data Sheet

acc. GHS

Printing date 11/09/2017

Reviewed on 11/09/2017

* 1 Identification

. **Product identifier**. **Trade name** *POLYESTER/TGIC METALLIC*. **Article number:** 38, 39, 49, 418M. **Manufacturer/Supplier:**

USA:

TIGER Drylac U.S.A., Inc.

3945 Swenson Ave

St. Charles, IL 60174

Phone: +1- 630-587-2918

Fax: +1-630-587-2923

Canada:

TIGER Drylac Canada Inc.

110 Southgate Drive

Guelph, Ontario, N1G 4P5

Phone: +1-519-766-4781

Fax: +1-519-766-4787

Mexico

TIGER Drylac Mexico S.A. de C.V.

Circuito Exportación 212, Parque Industrial Tres Naciones

San Luis Potosí, SLP, C.P. 78395

Phone +52-444-799-7243

Fax +52-444-799-7244

. **Informing department:** Product Safety Department. **Emergency telephone number:** 24/7:1-800-255-3924; International:+01 or +001-813-248-0585

* 2 Hazard(s) identification

. **Classification of the substance or mixture**

GHS08 Health hazard

Muta. 1B H340 May cause genetic defects.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

Combustible Dust May form combustible dust concentrations in air.

. **Label elements**. **GHS label elements**

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

(Contd. on page 2)

US

Safety Data Sheet

acc. GHS

Printing date 11/09/2017

Reviewed on 11/09/2017

Trade name **POLYESTER/TGIC METALLIC**

(Contd. of page 1)

. Hazard pictograms

GHS05

GHS07

GHS08

. Signal word *Danger***. Hazard-determining components of labeling:***1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione***. Hazard statements***Causes serious eye damage.**May cause an allergic skin reaction.**May cause genetic defects.**May cause damage to organs through prolonged or repeated exposure.**May form combustible dust concentrations in air.***. Precautionary statements***Obtain special instructions before use.**Do not handle until all safety precautions have been read and understood.**Do not breathe dust/fume/gas/mist/vapors/spray.**Contaminated work clothing must not be allowed out of the workplace.**Wear protective gloves/protective clothing/eye protection/face protection.**If on skin: Wash with plenty of water.**If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.**If exposed or concerned: Get medical advice/attention.**Immediately call a poison center/doctor.**Get medical advice/attention if you feel unwell.**Specific treatment (see on this label).**If skin irritation or rash occurs: Get medical advice/attention.**Wash contaminated clothing before reuse.**Store locked up.**Dispose of contents/container in accordance with local/regional/national/international regulations.***. Classification system****. NFPA ratings (scale 0-4)**

Health = 3

Fire = 1

Reactivity = 1

. HMIS-RATINGS (SCALE 0 - 4)

Health = *3

Fire = 1

Reactivity = 1

. Other hazards**. Results of PBT and vPvB assessment****. PBT:** Not applicable.**. vPvB:** Not applicable.* **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%

(Contd. on page 3)

Safety Data Sheet

acc. GHS

Printing date 11/09/2017

Reviewed on 11/09/2017

Trade name POLYESTER/TGIC METALLIC

(Contd. of page 2)

7727-43-7	barium sulphate, natural	10-25%
2451-62-9	1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione Acute Tox. 3, H301; Acute Tox. 3, H331; Muta. 1B, H340; STOT RE 2, H373; Eye Dam. 1, H318; Skin Sens. 1, H317	2.5-10%
7429-90-5	aluminum powder (stabilized) Flam. Sol. 1, H228; Water-react. 2, H261	<2.5%
12001-26-2	mica	<2.5%

. **Additional information** For the wording of the listed hazard phrases refer to section 16.

* **4 First-aid measures**. **Description of first aid measures**. **General information**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

. **After inhalation**

Supply fresh air and call for doctor for safety reasons.

In case of unconsciousness bring patient into stable side position for transport.

. **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** Instantly call for 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.

. **Special hazards arising from the substance or mixture**

No further relevant information available.

. **Advice for firefighters**. **Protective equipment:** Put on breathing apparatus.* **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.

Ensure adequate ventilation.

. **Reference to other sections**

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	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
12001-26-2	mica	9 mg/m ³
7631-86-9	silicon dioxide, chemically prepared	18 mg/m ³

(Contd. on page 4)

US

Safety Data Sheet

acc. GHS

Printing date 11/09/2017

Reviewed on 11/09/2017

Trade name **POLYESTER/TGIC METALLIC**

(Contd. of page 3)

1344-28-1	aluminium oxide	15 mg/m ³
112926-00-8	Silicon dioxide	18 mg/m ³
1314-23-4	zirconium dioxide	14 mg/m ³
471-34-1	calcium carbonate	45 mg/m ³
1309-37-1	diiron trioxide	15 mg/m ³
14808-60-7	quartz (SiO ₂)	0.075 mg/m ³
1308-14-1	chromium hydroxide(III)	3 mg/m ³
18282-10-5	tin dioxide	7.6 mg/m ³

. PAC-2:

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
12001-26-2	mica	99 mg/m ³
7631-86-9	silicon dioxide, chemically prepared	740 mg/m ³
1344-28-1	aluminium oxide	170 mg/m ³
112926-00-8	Silicon dioxide	200 mg/m ³
1314-23-4	zirconium dioxide	110 mg/m ³
471-34-1	calcium carbonate	210 mg/m ³
1309-37-1	diiron trioxide	360 mg/m ³
14808-60-7	quartz (SiO ₂)	33 mg/m ³
1308-14-1	chromium hydroxide(III)	33 mg/m ³
18282-10-5	tin dioxide	85 mg/m ³

. PAC-3:

13463-67-7	titanium dioxide	2,000 mg/m ³
21645-51-2	aluminium hydroxide	440 mg/m ³
7727-43-7	barium sulphate, natural	990 mg/m ³
12001-26-2	mica	590 mg/m ³
7631-86-9	silicon dioxide, chemically prepared	4,500 mg/m ³
1344-28-1	aluminium oxide	990 mg/m ³
112926-00-8	Silicon dioxide	1,200 mg/m ³
1314-23-4	zirconium dioxide	680 mg/m ³
471-34-1	calcium carbonate	1,300 mg/m ³
1309-37-1	diiron trioxide	2,200 mg/m ³
14808-60-7	quartz (SiO ₂)	200 mg/m ³
1308-14-1	chromium hydroxide(III)	200 mg/m ³
18282-10-5	tin dioxide	510 mg/m ³

* **7 Handling and storage****. Handling****. Precautions for safe handling**

No special measures required.

Thorough dedusting.

Keep containers tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

Open and handle container with care.

. Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Keep breathing equipment ready.

(Contd. on page 5)

Safety Data Sheet

acc. GHS

Printing date 11/09/2017

Reviewed on 11/09/2017

Trade name **POLYESTER/TGIC METALLIC**

(Contd. of page 4)

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:** Keep container tightly sealed.
- . **Specific end use(s)** No further relevant information available.

* 8 Exposure controls/personal protection

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

. Components with critical values that require monitoring at the workplace:

13463-67-7 titanium dioxide

PEL (U.S.A)	Long-term value: 15* mg/m ³ *total dust
REL (U.S.A)	See Pocket Guide App. A
TLV (U.S.A)	Long-term value: 10 mg/m ³ withdrawn from NIC
EL (Canada)	Long-term value: 10* 3** mg/m ³ *total dust; **respirable fraction; IARC 2B
EV (Canada)	Long-term value: 10 mg/m ³ total dust
LMPE (Mexico)	Long-term value: 10 mg/m ³ A4

21645-51-2 aluminium hydroxide

REL (U.S.A)	Long-term value: 2 mg/m ³ as Al
TLV (U.S.A)	Long-term value: 1* mg/m ³ as Al; *as respirable fraction
EL (Canada)	Long-term value: 10 mg/m ³

7727-43-7 barium sulphate, natural

PEL (U.S.A)	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL (U.S.A)	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV (U.S.A)	Long-term value: 5* mg/m ³ *inhalable fraction; E
EL (Canada)	Long-term value: 10* 3** mg/m ³ *total dust, **respirable fraction
EV (Canada)	Long-term value: 10 mg/m ³ total dust
LMPE (Mexico)	Long-term value: 10 mg/m ³

2451-62-9 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione

TLV (U.S.A)	Long-term value: 0.05 mg/m ³
EL (Canada)	Long-term value: 0.05 mg/m ³ R; S
EV (Canada)	Long-term value: 0.05 mg/m ³
LMPE (Mexico)	Long-term value: 0.05 mg/m ³

(Contd. on page 6)

US

Safety Data Sheet

acc. GHS

Printing date 11/09/2017

Reviewed on 11/09/2017

Trade name **POLYESTER/TGIC METALLIC**

(Contd. of page 5)

7429-90-5 aluminum powder (stabilized)	
PEL (U.S.A)	Long-term value: 15*; 5** mg/m ³ *Total dust; ** Respirable fraction
REL (U.S.A)	Long-term value: 10* 5** mg/m ³ as Al*Total dust**Respirable/pyro powd./welding f.
TLV (U.S.A)	Long-term value: 1* mg/m ³ as Al; *as respirable fraction
EL (Canada)	Long-term value: 1.0 mg/m ³ respirable, as Al
LMPE (Mexico)	Long-term value: 1* mg/m ³ A4, *fracción respirable
12001-26-2 mica	
PEL (U.S.A)	Long-term value: 20 mppcf ppm <1% crystalline silica
REL (U.S.A)	Long-term value: 3* mg/m ³ *respirable dust; containing < 1% quartz
TLV (U.S.A)	Long-term value: 3* mg/m ³ *as respirable fraction
EL (Canada)	Long-term value: 3 mg/m ³
EV (Canada)	Long-term value: 3(D) mg/m ³ respirable
LMPE (Mexico)	Long-term value: 3* mg/m ³ *fracción respirable

. Additional information:

The lists that were valid during the compilation were used as basis.

. Exposure controls

. Personal protective equipment

. General protective and hygienic measures

Keep away from foodstuffs, beverages and food.
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.
Store protective clothing separately.

. Breathing equipment:



In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

. Protection of hands:



Protective gloves.

. Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

. Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

. Eye protection:



Safety Glasses

(Contd. on page 7)

US

Safety Data Sheet

acc. GHS

Printing date 11/09/2017

Reviewed on 11/09/2017

Trade name **POLYESTER/TGIC METALLIC**

(Contd. of page 6)

. **Body protection:** Protective work clothing.

* 9 Physical and Chemical Properties

. **Information on basic physical and chemical properties**. **General Information**. **Appearance:**

Form:	Solid
Colour:	According to Trade Name

. **Smell:** Characteristic. **Odor threshold:** Not determined. **pH-value:** Not applicable. **Change in condition**. **Melting point/Melting range:** > 50 C / 120F. **Boiling point/Boiling range:** Not applicable. **Flash point:** Not applicable. **Inflammability (solid, gaseous)** Not determined. **Ignition temperature:** 400 °C (752 °F). **Decomposition temperature:** Not determined. **Self-inflammability:** Product is not selfigniting.. **Danger of explosion:** Product is not explosive. However, formation of explosive air/dust mixtures is possible. **Critical values for explosion:**. **Lower:** Not determined.. **Upper:** Not determined.. **Steam pressure:** Not applicable.. **Density (Specific gravity) at 20 °C (68 °F)** 1.53 g/cm³ (12.77 lbs/gal). **Relative density** Not determined.. **Vapor density** Not applicable.. **Evaporation rate** Not applicable.. **Solubility in / Miscibility with**. **Water:** Unsoluble. **Partition coefficient (n-octanol/water):** Not determined.. **Viscosity:**. **dynamic:** Not applicable.. **kinematic:** Not applicable.. **Solvent content:**. **Organic solvents:** 0.0 %. **Solids content:** 100.0 %. **Other information** No further relevant information available.

* 10 Stability and Reactivity

. **Reactivity** No further relevant information available.. **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, CO₂, NO_x

(Contd. on page 8)

US

Safety Data Sheet

acc. GHS

Printing date 11/09/2017

Reviewed on 11/09/2017

Trade name **POLYESTER/TGIC METALLIC**

(Contd. of page 7)

* 11 Toxicological Information

- . Information on toxicological effects
- . Acute toxicity:

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

2451-62-9 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione

Oral	LD50	188-1,450 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	0.309-650 mg/l (rat)

- . Primary irritant effect:
- . on the skin: No irritant effect.
- . on the eye: No irritant effect.
- . Sensitization: Sensitization possible by skin contact.
- . Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

Irritant
Harmful

The product can cause inheritable damage.

- . Carcinogenic categories

- . IARC (International Agency for Research on Cancer)

13463-67-7	titanium dioxide	2B
7631-86-9	silicon dioxide, chemically prepared	3
112926-00-8	Silicon dioxide	3
1309-37-1	diiron trioxide	3
14808-60-7	quartz (SiO ₂)	1

- . NTP (National Toxicology Program)

14808-60-7	quartz (SiO ₂)	K
------------	----------------------------	---

- . OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

* 12 Ecological information

- . Toxicity
- . Aquatic toxicity: No further relevant information available.
- . Persistence and degradability No further relevant information available.
- . Behaviour in environmental systems:
- . Bioaccumulative potential No further relevant information available.
- . Mobility in soil No further relevant information available.
- . Additional ecological information:

- . General notes:

Water danger class 3 (Self-assessment): extremely hazardous for water.

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into soil.

- . Results of PBT and vPvB assessment

- . PBT: Not applicable.
- . vPvB: Not applicable.
- . Other adverse effects No further relevant information available.

(Contd. on page 9)

US

Safety Data Sheet

acc. GHS

Printing date 11/09/2017

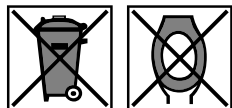
Reviewed on 11/09/2017

Trade name **POLYESTER/TGIC METALLIC**

(Contd. of page 8)

13 Disposal considerations

- . Waste treatment methods
- . Recommendation



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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

* 14 Transport information

- . UN-Number
- . ADR, IMDG, IATA N/A
- . UN proper shipping name N/A
- . DOT, ADR, IMDG, IATA N/A
- . Transport hazard class(es)
- . DOT, IMDG, IATA
- . Class Not regulated.
- . Packing group
- . ADR N/A
- . Environmental hazards:
- . Marine pollutant: No
- . Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.

* 15 Regulatory information

- . Safety, health and environmental regulations/legislation specific for the substance or mixture
- . 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):

All ingredients are listed.

. TSCA new (21st Century Act) (Substances not listed)

7429-90-5	aluminum powder (stabilized)
12001-26-2	mica

. 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.

(Contd. on page 10)

Safety Data Sheet

acc. GHS

Printing date 11/09/2017

Reviewed on 11/09/2017

Trade name **POLYESTER/TGIC METALLIC**

(Contd. of page 9)

. 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
1309-37-1	diiron trioxide	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)	

. GHS label elements

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

. Hazard pictograms

GHS05

GHS07

GHS08

. Signal word *Danger***. Hazard-determining components of labeling:**

1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione

. Hazard statements

Causes serious eye damage.

May cause an allergic skin reaction.

May cause genetic defects.

May cause damage to organs through prolonged or repeated exposure.

May form combustible dust concentrations in air.

. Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/fume/gas/mist/vapors/spray.

Contaminated work clothing must not be allowed out of the workplace.

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

If on skin: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If exposed or concerned: Get medical advice/attention.

Immediately call a poison center/doctor.

Get medical advice/attention if you feel unwell.

Specific treatment (see on this label).

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

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

(Contd. on page 11)

Safety Data Sheet

acc. GHS

Printing date 11/09/2017

Reviewed on 11/09/2017

Trade name **POLYESTER/TGIC METALLIC**

(Contd. of page 10)

* 16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

. Relevant phrases

H228 Flammable solid.
 H261 In contact with water releases flammable gas.
 H301 Toxic if swallowed.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H331 Toxic if inhaled.
 H340 May cause genetic defects.
 H373 May cause damage to organs through prolonged or repeated exposure.

. **Date of preparation / last revision** 11/09/2017 / -

. Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 ACGIH: American Conference of Governmental Industrial Hygienists
 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, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety
 OSHA: Occupational Safety & Health
 TLV: Threshold Limit Value
 PEL: Permissible Exposure Limit
 REL: Recommended Exposure Limit
 Flam. Sol. 1: Flammable solids - Category 1
 Water-react. 2: Substances and mixtures which in contact with water emit flammable gases - Category 2
 Acute Tox. 3: Acute toxicity - Category 3
 Eye Dam. 1: Serious eye damage/eye irritation - Category 1
 Skin Sens. 1: Skin sensitisation - Category 1
 Muta. 1B: Germ cell mutagenicity - Category 1B
 STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2

. *** Data compared to the previous version altered.**