Safety Data Sheet
acc. GHS

Printing date 11/08/2017 Reviewed on 11/08/2017

* 1 Identification

. **Product identifier**

. **Trade name POLYESTER-EPOXY FAST CURE METALLIC**

. **Article number:** 530M

. **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**

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).

. **Hazard pictograms**

GHS07

. **Signal word** Warning

. **Hazard-determining components of labeling:**

Phenol, polymer with formaldehyde, glycidyl ether

. **Hazard statements**

May cause an allergic skin reaction.
May form combustible dust concentrations in air.

. **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves.

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If on skin: Wash with plenty of water.
Specific treatment (see on this label).
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Dispose of contents/container in accordance with local/regional/national/international regulations.

. **Classification system**
. **NFPA ratings (scale 0-4)**

Health = 1
Fire = 1
Reactivity = 1

. **HMIS-RATINGS (SCALE 0 - 4)**

Health = 1
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:**		
21645-51-2	aluminium hydroxide	10-25%
13463-67-7	titanium dioxide	10-25%
28064-14-4	Phenol, polymer with formaldehyde, glycidyl ether Skin Irrit. 2, H315; Eye Irrit. 2A, H319; 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**
. **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** 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.

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. **Special hazards arising from the substance or mixture**
No further relevant information available.
. **Advice for firefighters**
. **Protective equipment:** No special measures required.

* 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.
Inform respective authorities in case product reaches water or sewage system.
. **Methods and material for containment and cleaning up:** Collect mechanically.
. **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:**		
25036-25-3	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]	12 mg/m³
21645-51-2	aluminium hydroxide	8.7 mg/m³
13463-67-7	titanium dioxide	30 mg/m³
28064-14-4	Phenol, polymer with formaldehyde, glycidyl ether	30 mg/m³
12001-26-2	mica	9 mg/m³
9002-88-4	Ethene, homopolymer	16 mg/m³
7631-86-9	silicon dioxide, chemically prepared	18 mg/m³
1344-28-1	aluminium oxide	15 mg/m³
1314-23-4	zirconium dioxide	14 mg/m³
9002-84-0	Ethene, tetrafluoro-, homopolymer	12 mg/m³
14808-60-7	quartz (SiO2)	0.075 mg/m³
1309-37-1	diiron trioxide	15 mg/m³
1308-14-1	chromium hydroxide(III)	3 mg/m³
18282-10-5	tin dioxide	7.6 mg/m³

. **PAC-2:**		
25036-25-3	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]	130 mg/m³
21645-51-2	aluminium hydroxide	73 mg/m³
13463-67-7	titanium dioxide	330 mg/m³
28064-14-4	Phenol, polymer with formaldehyde, glycidyl ether	330 mg/m³
12001-26-2	mica	99 mg/m³
9002-88-4	Ethene, homopolymer	170 mg/m³
7631-86-9	silicon dioxide, chemically prepared	740 mg/m³
1344-28-1	aluminium oxide	170 mg/m³
1314-23-4	zirconium dioxide	110 mg/m³
9002-84-0	Ethene, tetrafluoro-, homopolymer	130 mg/m³
14808-60-7	quartz (SiO2)	33 mg/m³
1309-37-1	diiron trioxide	360 mg/m³
1308-14-1	chromium hydroxide(III)	33 mg/m³
18282-10-5	tin dioxide	85 mg/m³

. **PAC-3:**		
25036-25-3	Phenol, 4,4'-(1-methylethylidene)bis-, polymer with 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis[oxirane]	790 mg/m³

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21645-51-2	aluminium hydroxide	440 mg/m³
13463-67-7	titanium dioxide	2,000 mg/m³
28064-14-4	Phenol, polymer with formaldehyde, glycidyl ether	2,000 mg/m³
12001-26-2	mica	590 mg/m³
9002-88-4	Ethene, homopolymer	1,000 mg/m³
7631-86-9	silicon dioxide, chemically prepared	4,500 mg/m³
1344-28-1	aluminium oxide	990 mg/m³
1314-23-4	zirconium dioxide	680 mg/m³
9002-84-0	Ethene, tetrafluoro-, homopolymer	790 mg/m³
14808-60-7	quartz (SiO2)	200 mg/m³
1309-37-1	diiron trioxide	2,200 mg/m³
1308-14-1	chromium hydroxide(III)	200 mg/m³
18282-10-5	tin dioxide	510 mg/m³

* 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:**

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:**
Store in cool, dry conditions in well sealed containers.
. **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:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

21645-51-2 aluminium hydroxide	
REL (U.S.A)	Long-term value: 2 mg/m³ as Al
TLV (U.S.A)	Long-term value: 1* mg/m³ as Al;*as respirable fraction
EL (Canada)	Long-term value: 10 mg/m³
13463-67-7 titanium dioxide	
PEL (U.S.A)	Long-term value: 15* mg/m³ *total dust

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REL (U.S.A)	See Pocket Guide App. A
TLV (U.S.A)	Long-term value: 10 mg/m³ withdrawn from NIC
EL (Canada)	Long-term value: 10* 3** mg/m³ *total dust;**respirable fraction; IARC 2B
EV (Canada)	Long-term value: 10 mg/m³ total dust
LMPE (Mexico)	Long-term value: 10 mg/m³ A4
7429-90-5 aluminum powder (stabilized)	
PEL (U.S.A)	Long-term value: 15*; 5** mg/m³ *Total dust; ** Respirable fraction
REL (U.S.A)	Long-term value: 10* 5** mg/m³ as Al*Total dust**Respirable/pyro powd./welding f.
TLV (U.S.A)	Long-term value: 1* mg/m³ as Al; *as respirable fraction
EL (Canada)	Long-term value: 1.0 mg/m³ respirable, as Al
LMPE (Mexico)	Long-term value: 1* mg/m³ A4, *fracciòn 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/m³ *respirable dust; containing < 1% quartz
TLV (U.S.A)	Long-term value: 3* mg/m³ *as respirable fraction
EL (Canada)	Long-term value: 3 mg/m³
EV (Canada)	Long-term value: 3(D) mg/m³ respirable
LMPE (Mexico)	Long-term value: 3* mg/m³ *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**
Instantly remove any soiled and impregnated garments.
Wash hands during breaks and at the end of the work.

. **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.

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. **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

. **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)**	1.68 g/cm³ (14.02 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.

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* 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, NOx

* 11 Toxicological Information

. **Information on toxicological effects**
. **Acute toxicity:**
. **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

. **Carcinogenic categories**

. IARC (International Agency for Research on Cancer)		
13463-67-7	titanium dioxide	2B
9002-88-4	Ethene, homopolymer	3
7631-86-9	silicon dioxide, chemically prepared	3
9002-84-0	Ethene, tetrafluoro-, homopolymer	3
14808-60-7	quartz (SiO2)	1
1309-37-1	diiron trioxide	3

. NTP (National Toxicology Program)		
14808-60-7	quartz (SiO2)	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.
. **Ecotoxical effects:**
. **Remark:** Harmful to fish
. **Additional ecological information:**
. **General notes:**
Generally not hazardous for water.
Harmful to aquatic organisms
. **Results of PBT and vPvB assessment**
. **PBT:** Not applicable.
. **vPvB:** Not applicable.
. **Other adverse effects** No further relevant information available.

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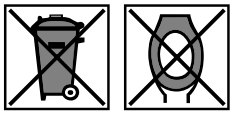
13 Disposal considerations

. **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, 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.

* 15 Regulatory information

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

. **SARA (Superfund Amendments and Reauthorization Act):**

. **Section 355 (Extremly hazardous substances):**

None of the ingredients is listed.

. **Section 313 (Specific toxic chemical listings):**

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.

. **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

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. **Cancerogenity categories**

. **EPA (Environmental Protection Agency)**
None of the ingredients is listed.

. **TLV (Threshold Limit Value established by ACGIH)**		
13463-67-7	titanium dioxide	A4
1344-28-1	aluminium oxide	A4
1314-23-4	zirconium dioxide	A4
14808-60-7	quartz (SiO2)	A2
1309-37-1	diiron trioxide	A4

. **NIOSH-Ca (National Institute for Occupational Safety and Health)**	
13463-67-7	titanium dioxide
14808-60-7	quartz (SiO2)

. **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
. **Hazard pictograms**

GHS07

. **Signal word** Warning

. **Hazard-determining components of labeling:**
Phenol, polymer with formaldehyde, glycidyl ether
. **Hazard statements**
May cause an allergic skin reaction.
May form combustible dust concentrations in air.
. **Precautionary statements**
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves.
If on skin: Wash with plenty of water.
Specific treatment (see on this label).
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Dispose of contents/container in accordance with local/regional/national/international regulations.
. **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

* 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.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
. **Date of preparation / last revision** 11/08/2017 / -
. **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

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CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
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
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
Skin Sens. 1: Skin sensitisation – Category 1

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