

Safety Data Sheet

A Meridian Adhesives Group Company

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 9/15/2023 Revision date: 9/26/2023 Supersedes: 9/15/2023 Version: 1.1

SECTION 1: Identification 1.1. Identification Product form : Mixture Product name : TR2139-LH PMF Syringe 1.2. Recommended use and restrictions on use Restrictions on use : Not to be used for any purpose other than the one the product was designed for 1.3. Supplier Epoxy Technology, Inc. 14 Fortune Drive Billerica, MA 01821 USA T 978-667-3805 - F 978-663-9782 www.epotek.com 1.4. Emergency telephone number Emergency number : VelocityEHS: +1 (800) 255-3924, +1 (813) 248-0585

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation Category 1	H318	Causes serious eye damage
Skin sensitization, Category 1	H317	May cause an allergic skin reaction
Hazardous to the aquatic environment – Chronic Hazard Category 2	H411	Toxic to aquatic life with long lasting effects
Full text of H statements : see section 16		

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)

Signal word (GHS US) Hazard statements (GHS US)

Precautionary statements (GHS US)



- : Danger
- : H315 Causes skin irritation
- H317 May cause an allergic skin reaction
- H318 Causes serious eye damage
- H411 Toxic to aquatic life with long lasting effects
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P264 Wash hands, forearms and face thoroughly after handling.
- P272 Contaminated work clothing must not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P302+P352 If on skin: Wash with plenty of water.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove
- contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a poison center or doctor.

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P321 - Specific treatment (see supplemental first aid instruction on this label).
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P363 - Wash contaminated clothing before reuse.
P391 - Collect spillage.
P501 - Dispose of contents/container to hazardous or special waste collection point, in
accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Epoxy phenol novolac resin	CAS-No.: 9003-36-5	30 – 60	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Substituted imidazole	CAS-No.: 23996-25-0	1 – 5	Acute Tox. 3 (Oral), H301 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335
Titanium oxide (TiO2)	CAS-No.: 13463-67-7	< 5	Carc. 2, H351

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures	
4.1. Description of first aid measures	
First-aid measures after inhalation First-aid measures after skin contact First-aid measures after eye contact	 Remove person to fresh air and keep comfortable for breathing. Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to
First-aid measures after ingestion 4.2. Most important symptoms and eff	 do. Continue rinsing. Call a physician immediately. : Call a poison center/doctor/physician if you feel unwell.
Symptoms/effects after skin contact Symptoms/effects after eye contact	Irritation. May cause an allergic skin reaction.Serious damage to eyes.
4.3. Immediate medical attention and s	special treatment, if necessary

Treat symptomatically.

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SECTION 5: Fire-fighting measures					
5.1. Suitable (and unsuitable) extinguishing n	nedia				
Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.					
5.2. Specific hazards arising from the chemic	al				
Hazardous decomposition products in case of fire :	Toxic fumes may be released.				
5.3. Special protective equipment and precau	itions for fire-fighters				
Protection during firefighting :	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.				
SECTION 6: Accidental release measure	S				
6.1. Personal precautions, protective equipm	ent and emergency procedures				
6.1.1. For non-emergency personnel					
Emergency procedures :	Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.				
6.1.2. For emergency responders					
Protective equipment :	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".				

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up				
For containment Methods for cleaning up Other information	 Collect spillage. Take up liquid spill into absorbent material. Dispose of materials or solid residues at an authorized site. 			
6.4. Reference to other sections				

For further information refer to section 13.

SECTION 7: Handling and storage					
7.1. Precautions for safe handling					
Precautions for safe handling	: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapors/spray.				
Hygiene measures	: Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.				
7.2. Conditions for safe storage, including any incompatibilities					
Storage conditions	: Store in a well-ventilated place. Keep cool.				

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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TR2139-LH PMF Syringe			
No additional information available			
Epoxy phenol novolac resin (9003-36-5)			
No additional information available			
Titanium oxide (TiO2) (13463-67-7)			
USA - ACGIH - Occupational Exposure	Limits		
Local name	Titanium dioxide (*not respirable as contained in this liquid mixture)		
ACGIH OEL TWA	0.2 mg/m ³ (Respirable fraction) 2.5 mg/m ³ (Respirable fraction)		
Remark (ACGIH) TLV® Basis: LRT irr; pneumoconiosis. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)			
Regulatory reference	ACGIH 2022		
USA - OSHA - Occupational Exposure L	imits		
Local name	Titanium dioxide (*not respirable as contained in this liquid mixture)		
Substituted imidazole (23996-25-0)			
No additional information available			
8.2. Appropriate engineering contro	ls		
Appropriate engineering controls : Ensure good ventilation of the work station.			
Environmental exposure controls	: Avoid release to the environment.		
8.3. Individual protection measures	/Personal protective equipment		
Hand protection:			
Protective gloves			
Eye protection:			
Safety glasses			
Skin and body protection:			
Wear suitable protective clothing			
Respiratory protection:			



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

: Liquid

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Color :	Mixture contains one or more component(s) which have the following colour(s): Yellow White to grey Pure substance: white Unpurified: coloured Colourless to white Black Pure substance: colourless to white-grey Unpurified: yellow to brown Commercial substance: yellow to brown Colourless or white White to yellow White to light grey White Colourless to light yellow
Odor :	There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Odourless Mild odour Phenol odour Ammonia odour
Odor threshold :	No data available
pH :	No data available
Melting point	Not applicable
Freezing point :	No data available
Boiling point :	No data available
Flash point :	No data available
Relative evaporation rate (butyl acetate=1)	No data available
Flammability (solid, gas) :	Not applicable.
Vapor pressure :	No data available
Relative vapor density at 20°C	No data available
Relative density :	No data available
Solubility :	No data available
Partition coefficient n-octanol/water (Log Pow) :	No data available
Auto-ignition temperature :	No data available
Decomposition temperature :	No data available
Viscosity, kinematic :	No data available
Viscosity, dynamic :	No data available
Explosion limits :	No data available
Explosive properties :	No data available
Oxidizing properties :	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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11.1. Information on toxicological effe	ects
Acute toxicity (oral) Acute toxicity (dermal) Acute toxicity (inhalation)	 Not classified Not classified Not classified
Titanium oxide (TiO2) (13463-67-7)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 oral	5000 mg/kg
LC50 Inhalation - Rat	> 5.09 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male, Experimental value, Inhalation (dust), 14 day(s))
LC50 Inhalation - Rat (Dust/Mist)	> 3.43 mg/l Source: ECHA
ATE US (oral)	5000 mg/kg body weight
Substituted imidazole (23996-25-0)	
ATE US (oral)	100 mg/kg body weight
Skin corrosion/irritation	: Causes skin irritation.
Epoxy phenol novolac resin (9003-36	-5)
рН	No data available in the literature
Titanium oxide (TiO2) (13463-67-7)	
рН	7 (aqueous suspension, 10 %)
Serious eye damage/irritation	: Causes serious eye damage.
Epoxy phenol novolac resin (9003-36	-5)
рН	No data available in the literature
Titanium oxide (TiO2) (13463-67-7)	
рН	7 (aqueous suspension, 10 %)
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified.
Titanium oxide (TiO2) (13463-67-7)	
Additional information	*Not a respirable hazard as contained in this liquid mixture
IARC group	2B - Possibly carcinogenic to humans
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
Substituted imidazole (23996-25-0)	
STOT-single exposure STOT-repeated exposure	May cause respiratory irritation.
Epoxy phenol novolac resin (9003-36 NOAEL (oral,rat,90 days)	->) ≈ 250 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Da Oral Toxicity in Rodents)
Aspiration hazard	: Not classified

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Epoxy phenol novolac resin (9003-36-5)				
Viscosity, kinematic No data available in the literature				
Titanium oxide (TiO2) (13463-67-7)				
Viscosity, kinematic Not applicable (solid)				
Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.				
Symptoms/effects after eye contact : Serious damage to eyes.				

SECTION 12: Ecological information

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Ecology - general :	Toxic to aquatic life with long lasting effects.
Epoxy phenol novolac resin (9003-36-5)	
LC50 - Fish [1]	1.9 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Brachydanio rerio, Semi-static system, Fresh water, Weight of evidence)
EC50 - Crustacea [1]	3.5 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Weight of evidence, GLP)
LC50 - Fish [2]	1000 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 72h - Algae [1]	1.8 mg/l (Equivalent or similar to OECD 201, Selenastrum capricornutum, Static system, Fresh water, Experimental value)
LOEC (chronic)	1 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.3 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
Titanium oxide (TiO2) (13463-67-7)	
LC50 - Fish [1]	> 1000 mg/l (Pisces, Fresh water)
EC50 - Crustacea [1]	> 1000 mg/l (Invertebrata, Fresh water)
EC50 72h - Algae [1]	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)

12.2. Persistence and degradability

Epoxy phenol novolac resin (9003-36-5)		
Not rapidly degradable		
Persistence and degradability Not readily biodegradable in water.		
Titanium oxide (TiO2) (13463-67-7)		
Not rapidly degradable		
Persistence and degradability	Biodegradability: not applicable.	
Chemical oxygen demand (COD)	Not applicable (inorganic)	
ThOD	Not applicable (inorganic)	
Substituted imidazole (23996-25-0)		
Not rapidly degradable		

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12.3. Bioaccumulative potential		
Epoxy phenol novolac resin (9003-36-5)		
Partition coefficient n-octanol/water (Log Pow) 2.7 – 3.6 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method)		
Bioaccumulative potential Low potential for bioaccumulation (Log Kow < 4).		
Titanium oxide (TiO2) (13463-67-7)		
Bioaccumulative potential Not bioaccumulative.		
12.4. Mobility in soil		

Organic Carbon Normalized Adsorption Coefficient (Log Koc)3.65 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental		
potential for mobility in soil.		
Titanium oxide (TiO2) (13463-67-7)		
data available in the literature		
potential for mobility in soil.		
c		

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations 13.1. Disposal methods

Waste treatment methods

: Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

DOT	TDG	IMDG	ΙΑΤΑ
14.1. UN number			
3082	UN3082	3082	3082
14.2. Proper Shipping Name			
Environmentally hazardous substances, liquid, n.o.s. (Epoxy phenol novolac resin)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy phenol novolac resin)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy phenol novolac resin)	Environmentally hazardous substance, liquid, n.o.s. (Epoxy phenol novolac resin)
14.3. Transport hazard class(es)			
9	9	9	9

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	TDG	IMDG	ΙΑΤΑ
14.4. Packing group	·	·	·
III	III III		III
14.5. Environmental hazards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Ye
No supplementary information availab	ble		
4.6. Special precautions for us	ser		
	solid materials, spec 146 - This descriptio does not meet the de	egulated substances, liquid or solid, n.c ial provision B54 applies. In may be used for a material that pose efinition for a hazardous waste or a haz pter, or any hazard class as defined in	es a hazard to the environment but zardous substance, as defined in

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

	MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 155
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 241
DOT Quantity Limitations Passenger aircraft/rail (49	: No Limit
CFR 173.27)	
DOT Quantity Limitations Cargo aircraft only (49	: No Limit
CFR 175.75)	
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a
	passenger vessel.

TDG

UN-No. (TDG)

: UN3082

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TDG Special Provisions	 16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the danger or dangers posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3). (2) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical name: (a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S; (b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S; (c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S; (d) UN3248, MEDICINE, LIQUID, TOXIC, N.O.S. (e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S. (f) UN3249, MEDICINE, SOLID, TOXIC, N.O.S. (g) UN2900, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or (h) UN2900, INFECTIOUS SUBSTANCE, AFFECTING ANIMALS,99 - (1) Mixtures of solids that are not dangerous goods and liquids or solids that are UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, or UN3022, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, or UN3022, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, or UN3022, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, on a tot ang of containment and during transport. (2) These Regulations, except for Parts 1 and 2, do not apply to the offering for transport, handling or transport fless than 450 kg of UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, on a road vehicle or a railway vehicle. The dangerous goods must be contained in one or more small means of containment designed, constructed, filled, closed, secured
	safety.
Explosive Limit and Limited Quantity Index	: 5L
Excepted quantities (TDG)	: E1
Emergency Response Guide (ERG) Number	: 171
IMDG	
Special provision (IMDG)	: 274, 335, 969
Limited quantities (IMDG)	: 5L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP01, P001
Packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP29
EmS-No. (Fire)	: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	: S-F - SPILLAGE SCHEDULE Foxtrot - WATER-SOLUBLE MARINE POLLUTANTS
Stowage category (IMDG)	: A
ΙΑΤΑ	
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
	· 904 : 450L
CAO max net quantity (IATA)	
Special provision (IATA)	: A97, A158, A197, A215

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ERG code (IATA)

: 9L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.			
Aluminum oxide (Al2O3) (non-fibrous) CAS-No. 1344-28-1 10 – 60%			
15.2. International regulations			
CANADA			
Epoxy phenol novolac resin (9003-36-5)			
Listed on the Canadian DSL (Domestic Substances List)			
Titanium oxide (TiO2) (13463-67-7)			
Listed on the Canadian DSL (Domestic Substances List)			
Substituted imidazole (23996-25-0)			

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Epoxy phenol novolac resin (9003-36-5)	
Listed on INSQ (Mexican National Inventory of Chemical Substances)	

 Titanium oxide (TiO2) (13463-67-7)

 Listed on IARC (International Agency for Research on Cancer)

 Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Titanium oxide (TiO2)(13463-67-7)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List

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SECTION 16: Other information

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Full text of I	Full text of H-phrases		
H301	Toxic if swallowed		
H315	Causes skin irritation		
H317	May cause an allergic skin reaction		
H318	Causes serious eye damage		
H335	May cause respiratory irritation		
H351	Suspected of causing cancer		
H411	Toxic to aquatic life with long lasting effects		

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.