

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: 9/21/2022 Version: 1.0

SECTION 1: Identification

1.1. Identification Product form : Mixture Product name : EPO-TEK® MED-353ND-T PMF SYRINGE

1.2. Recommended use and restrictions on use

Use of the substance/mixture	: Adhesives
Recommended use	: Adhesives
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
Carcinogenicity Category 2	H351	Suspected of causing cancer
Reproductive toxicity Category 1B	H360	May damage fertility or the unborn child
Specific target organ toxicity (single exposure) Category 1	H370	Causes damage to organs
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)



: Danger

- : H315 Causes skin irritation
 - H317 May cause an allergic skin reaction
 - H318 Causes serious eye damage
 - H351 Suspected of causing cancer
 - H360 May damage fertility or the unborn child
 - H370 Causes damage to organs
 - H411 Toxic to aquatic life with long lasting effects

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Precautionary statements (GHS US)	 P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P260 - Do not breathe dust/fume/gas/mist/vapors/spray. P261 - Avoid breathing dust/fume/gas/mist/vapors/spray. P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. 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. P307+P311 - If exposed: Call a poison center/doctor. P308+P313 - If exposed or concerned: Get medical advice/attention. P310 - Immediately call a poison center or doctor. P32+P313 - If skin irritation occurs: Get medical advice/attention. P33+P313 - If skin irritation occurs: Get medical advice/attention. P33+P313 - If skin irritation occurs: Get medical advice/attention. P33+P313 - If skin irritation or rash occurs: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P331 - Collect spillage. P405 - Store locked up. P501 - Dispose of contents/container to hazardous or special waste collection point, in
	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

 Other hazards which do not result in classification
 : Harmful dust may be released during cutting, milling or grinding process.

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	≥60	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Substituted imidazole*	CAS-No.: Trade Secret	1 – 5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1B, H317
Polar activator*	CAS-No.: Trade Secret	< 0.6	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Name	Product identifier	%	GHS US classification
Imidazole	CAS-No.: 288-32-4	≥ 1	Acute Tox. 4 (Oral), H302 Skin Corr. 1C, H314 Eye Dam. 1, H318 Repr. 1B, H360
Substituted imidazole*	CAS-No.: Trade Secret	< 1	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Corr. 1B, H314 Eye Dam. 1, H318 Carc. 2, H351

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Comments : Components not listed are either non-hazardous or are below reportable limits. 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 general First-aid measures after inhalation First-aid measures after skin contact	 IF exposed or concerned: Get medical advice/attention. 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.
First-aid measures after eye contact First-aid measures after ingestion	 Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. Call a poison center/doctor/physician if you feel unwell.
4.2. Most important symptoms and effe	ects (acute and delayed)
Symptoms/effects after inhalation Symptoms/effects after skin contact Symptoms/effects after eye contact Symptoms/effects after ingestion Chronic symptoms	 Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard. Irritation. May cause an allergic skin reaction. Serious damage to eyes. None under normal conditions. May damage fertility or the unborn child.
4.3. Immediate medical attention and s	special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures		
5.1. Suitable (and unsuitable) extinguishing media		
Suitable extinguishing media Unsuitable extinguishing media	Water spray. Dry powder. Foam. Carbon dioxide.Do not use a heavy water stream.	
5.2. Specific hazards arising from the chemical		
Fire hazard Explosion hazard Hazardous decomposition products in case of fire	 No fire hazard. No direct explosion hazard. Toxic fumes may be released. 	
5.3. Special protective equipment and precautions for fire-fighters		
Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.	

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
SECTION 6: Accidental releas	e measures
6.1. Personal precautions, protect	tive equipment and emergency procedures
General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.
6.1.1. For non-emergency personnel	
Protective equipment	: Wear recommended personal protective equipment.

6.1.2. For emergency responders

Emergency procedures

0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer
	to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel. Stop leak if safe to do so.
6.2. Environmental precautions	

breathe dust/fume/gas/mist/vapors/spray.

: Only qualified personnel equipped with suitable protective equipment may intervene. Do not

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for contain	ment and cleaning up
For containment	: Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.
Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other information	: 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	
Additional hazards when processed Precautions for safe handling	 Not expected to present a significant hazard under anticipated conditions of normal use. Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.
Hygiene measures	: Separate working clothes from town clothes. Launder separately. 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	g any incompatibilities
Technical measures Storage conditions Packaging materials	 Keep in a cool, well-ventilated place away from heat. Store locked up. Store always product in container of same material as original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

	-
Polar activator	
USA - ACGIH - Occupational Exposure Limits	3
ACGIH OEL TWA	200 ppm
ACGIH OEL STEL	250 ppm
Remark (ACGIH)	TLV® Basis: Headache; eye dam; dizziness; nausea. Notations: Skin; BEI
Regulatory reference	ACGIH 2024
USA - ACGIH - Biological Exposure Indices	
BEI	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: End of shift - Notations: B, Ns
Regulatory reference	ACGIH 2024
USA - OSHA - Occupational Exposure Limits	· ·
OSHA PEL TWA	260 mg/m ³
	200 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
8.2. Appropriate engineering controls	
Appropriate engineering controls Environmental exposure controls	Ensure good ventilation of the work station.Avoid release to the environment.
8.3. Individual protection measures/Pers	onal protective equipment
Personal protective equipment: Wear recommended personal protective equipme	ent.
Hand protection:	
a decision that depends not only on the type of n	ration. Neoprene or nitrile rubber gloves. Butyl-rubber protective gloves. Choosing the proper glove is naterial, but also on other quality features, which differ for each manufacturer. Refer to manufacturer's use and whenever signs of wear or perforation appear
Eye protection:	
Safety glasses	
Skin and body protection:	
okin and body proteotion.	
Wear suitable protective clothing	
••	



SECTION 9: Physical and chemical properties		
9.1. Information on basic physical and chemical properties		
Physical state	: Liquid	
Color	: tan	

Odor

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Odor threshold	: No data available
рН	: No data available
Melting point	: No data available
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)	: No data available
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.

SECTION 11: Toxicological information		
11.1. Information on toxicological effects		
Acute toxicity (oral) Acute toxicity (dermal) Acute toxicity (inhalation)	 Not classified Not classified Not classified 	

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Substituted imidazole	
LD50 oral rat	350 mg/kg Source: IUCLID
LD50 oral	173 mg/kg
LD50 dermal rabbit	440 mg/kg Source: IUCLID
ATE US (oral)	173 mg/kg body weight
ATE US (dermal)	440 mg/kg body weight
Substituted imidazole	
LD50 oral rat	731 mg/kg (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral)
LD50 dermal rabbit	> 400 mg/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal)
LC50 Inhalation - Rat	> 0.03 mg/l (Equivalent or similar to OECD 403, 8 h, Rat, Male / female, Experimental value, (maximum achievable concentration), Inhalation (vapours))
ATE US (oral)	731 mg/kg body weight
Imidazole (288-32-4)	
LD50 oral rat	970 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Experimental value, Oral, 7 day(s))
LD50 oral	960 mg/kg
ATE US (oral)	960 mg/kg body weight
Polar activator	
LD50 oral rat	1187 – 2769 mg/kg body weight (BASF test, Rat, Male / female, Experimental value, 15-35 % aqueous solution, Oral, 7 day(s))
LD50 oral	1400 mg/kg
LD50 dermal rabbit	300 mg/kg Source: ECHA
LD50 dermal	15800 mg/kg
LC50 Inhalation - Rat	128.2 mg/l air (BASF test, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))
ATE US (oral)	100 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h
Skin corrosion/irritation :	Causes skin irritation.
Substituted imidazole	
рН	10.6 (10 %)
Substituted imidazole	
рН	10.9 (21 %)
Imidazole (288-32-4)	

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Epoxy phenol novolac resin (9003-36-5)	
рН	No data available in the literature
Polar activator	
рН	No data available in the literature
Serious eye damage/irritation	: Causes serious eye damage.
Substituted imidazole	
pH	10.6 (10 %)
Substituted imidazole	
pH	10.9 (21 %)
Imidazole (288-32-4)	
рН	10.5 (7 %)
Epoxy phenol novolac resin (9003-36-5)	
рН	No data available in the literature
Polar activator	
рН	No data available in the literature
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.
Substituted imidazole	
IARC group	2B - Possibly carcinogenic to humans
Reproductive toxicity	: May damage fertility or the unborn child.
Polar activator	
NOAEL (animal/male, F0/P)	< 1000 mg/kg body weight Animal: mouse, Animal sex: male
STOT-single exposure	: Causes damage to organs.
Polar activator	
STOT-single exposure	Causes damage to organs.
STOT-repeated exposure	: Not classified
Substituted imidazole	
NOAEL (oral,rat,90 days)	150 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:EPA OPPTS 870.3650 (Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test)
Imidazole (288-32-4)	
NOAEL (oral,rat,90 days)	60 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Epoxy phenol novolac resin (9003-36-5)	
NOAEL (oral,rat,90 days)	≈ 250 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Aspiration hazard Viscosity, kinematic	 Not classified No data available

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Substituted imidazole		
Viscosity, kinematic	1435.897 mm²/s	
Imidazole (288-32-4)		
Viscosity, kinematic	No data available in the literature	
Epoxy phenol novolac resin (9003-36-5)		
Viscosity, kinematic	No data available in the literature	
Symptoms/effects after inhalation	: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.	
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.	
Symptoms/effects after eye contact	: Serious damage to eyes.	
Symptoms/effects after ingestion	: None under normal conditions.	
Chronic symptoms	: May damage fertility or the unborn child.	

SECTION 12: Ecological information

	icity	

Ecology - general	: Toxic to aquatic life with long lasting effects.
Substituted imidazole	
LC50 - Fish [1]	0.34 mg/l Source: IUCLID
EC50 - Crustacea [1]	180 mg/l Source: IUCLID
EC50 72h - Algae [1]	2 mg/l Source: IUCLID
Substituted imidazole	
LC50 - Fish [1]	68.1 mg/l (DIN 38412-15, 96 h, Leuciscus idus, Static system, Fresh water, Experimental value)
EC50 - Crustacea [1]	297.3 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
EC50 72h - Algae [1]	124.8 mg/l (DIN 38412-9, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Growth rate)
EC50 72h - Algae [2]	72 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 96h - Algae [1]	6.057 mg/l Source: Ecological Structure Activity Relationships
Imidazole (288-32-4)	
LC50 - Fish [1]	283.6 mg/l (48 h, Leuciscus idus, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	341.5 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 72h - Algae [1]	133 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
ErC50 algae	133 mg/l (DIN 38412: German standard methods for the examination of water, waste water and sludge, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
NOEC chronic algae	25 mg/l

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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'	
Polar activator		
LC50 - Fish [1]	15400 mg/l (EPA 660/3 - 75/009, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal)	
EC50 - Crustacea [1]	18260 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 96 h, Daphnia magna, Semi- static system, Fresh water, Experimental value, Locomotor effect)	
EC50 96h - Algae [1]	22000 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)	
NOEC (chronic)	208 mg/l Test organisms (species): Daphnia magna Duration: '21 d'	

12.2. Persistence and degradability

EPO-TEK® MED-353ND-T PMF SYRINGE			
Persistence and degradability	Not rapidly degradable		
Substituted imidazole	Substituted imidazole		
Persistence and degradability	Inherently biodegradable.		
Biochemical oxygen demand (BOD)	0.000002 g O ₂ /g substance		
Chemical oxygen demand (COD)	0.0015 g O ₂ /g substance		
Substituted imidazole			
Persistence and degradability	Readily biodegradable in water.		
Imidazole (288-32-4)			
Persistence and degradability	Readily biodegradable in the soil, Readily biodegradable in water.		
Epoxy phenol novolac resin (9003-36-5)			
Persistence and degradability	Not readily biodegradable in water.		
Polar activator			
Persistence and degradability	Readily biodegradable in the soil, Readily biodegradable in water.		
Biochemical oxygen demand (BOD)	0.6 – 1.12 g O ₂ /g substance		
Chemical oxygen demand (COD)	1.42 g O ₂ /g substance		
ThOD	1.5 g O ₂ /g substance		

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

12.3. Bioaccumulative potential			
Substituted imidazole			
Partition coefficient n-octanol/water (Log Pow)	0.35 (Experimental value)		
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).		
Substituted imidazole			
Partition coefficient n-octanol/water (Log Pow)	1.13 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)		
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).		
Imidazole (288-32-4)	Imidazole (288-32-4)		
Partition coefficient n-octanol/water (Log Pow)	-0.02 (Weight of evidence approach, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)		
Bioaccumulative potential	Not bioaccumulative.		
Epoxy phenol novolac resin (9003-36-5)	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).		
Polar activator			
BCF - Fish [1]	1 – 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value)		
Partition coefficient n-octanol/water (Log Pow)	-0.77 (Experimental value)		
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).		

12.4. Mobility in soil

Substituted imidazole		
Mobility in soil	28.23 Source: EPI SUITE	
Ecology - soil	No (test)data on mobility of the substance available.	
Substituted imidazole		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.71 (log Koc, Calculated value, pH = 7)	
Ecology - soil	Low potential for mobility in soil.	
Imidazole (288-32-4)		
Surface tension	No data available in the literature	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.36 – 2.32 (log Koc, Calculated value)	
Ecology - soil	Low potential for adsorption in soil.	
Epoxy phenol novolac resin (9003-36-5)		
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 value)	
Ecology - soil	Low potential for mobility in soil.	

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Polar activator	
Mobility in soil	2.75 Source: HSDB
Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	-0.89 – -0.21 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.
12.5. Other adverse effects	

No additional information available

SECTION 13: Disposal considerations	8
13.1. Disposal methods	
Regional waste regulation Waste treatment methods Sewage disposal recommendations Product/Packaging disposal recommendations Additional information	 Disposal must be done according to official regulations. Dispose of contents/container in accordance with licensed collector's sorting instructions. Disposal must be done according to official regulations. Disposal must be done according to official regulations. Do not re-use empty containers.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	ΙΑΤΑ
14.1. UN number	I		
UN3082	UN3082	3082	3082
14.2. Proper Shipping Name		·	
Environmentally hazardous substances, liquid, n.o.s. (Epoxy Phenol Novolac)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Phenol Novolac)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Phenol Novolac)	Environmentally hazardous substance, liquid, n.o.s. (Epoxy Phenol Novolac)
14.3. Transport hazard class(e	s)		
9	9	9	9
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: Yes
No supplementary information availa	ble	•	•

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

14.6. Special precautions for user

	· 11/12/08/2
UN-No.(DOT) DOT Special Provisions (49 CFR 172.102)	 UN3082 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies. 146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination. 173 - An appropriate generic entry may be used for this material. 335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s." UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leak-proof when used as bulk packaging. IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T4 - 2.65 178.274(d)(2) Normal
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 241
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: No limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: No limit
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

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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, FLAMMABLE, TOXIC, N.O.S; or
	(e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S.
	(3) Despite subsection (1), the technical name for the following dangerous goods is not required
	to be shown on a small means of containment:
	(a) UN2814, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or
	(b) 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 UN3082, ENVIRONMENTALLY HAZARDOUS
	SUBSTANCE, LIQUID, N.O.S, may be offered for transport, handled or transported as UN3077 if
	there is no visible liquid when the dangerous goods are loaded into a means 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 of less than 450 kg of UN3077, ENVIRONMENTALLY HAZARDOUS
	SUBSTANCE, SOLID, N.O.S, or less than 450 L of UN3082, ENVIRONMENTALLY
	HAZARDOUS SUBSTANCE, LIQUID, 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 and maintained so that under normal conditions of transport, including handling, there will be no release of the dangerous goods that could endanger public
	safety.
Explosive Limit and Limited Quantity Index	: 5 L
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) Packing provisions (IMDG)	: LP01, P001 : 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
	. 54
PCA Excepted quantities (IATA) PCA Limited quantities (IATA)	: E1 : Y964
PCA Limited quantities (IATA) PCA limited quantity max net quantity (IATA)	: 1964 : 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
Special provision (IATA)	: A97, A158, A197, A215

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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.		
Polar activator	CAS-No. 67-56-1	< 0.6%
Polar activator		
Listed on EPA Hazardous Air Pollutant (HAPS)		
CERCLA RQ	5000 lb	

15.2. International regulations

CANADA

Substituted imidazole

Listed on the Canadian NDSL (Non-Domestic Substances List)

Substituted imidazole

Listed on the Canadian DSL (Domestic Substances List)

Imidazole (288-32-4)

Listed on the Canadian DSL (Domestic Substances List)

Epoxy phenol novolac resin (9003-36-5)

Listed on the Canadian DSL (Domestic Substances List)

Polar activator

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Substituted imidazole

Listed on IARC (International Agency for Research on Cancer)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Imidazole (288-32-4)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Epoxy phenol novolac resin (9003-36-5)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Polar activator

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

This product can expose you to chemicals including Substituted imidazole, which is known to the State of California to cause cancer, and Polar activator, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Component	State or local regulations
Polar activator()	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of hazard classes and H-statements	
H225	Highly flammable liquid and vapor
H301	Toxic if swallowed
H302	Harmful if swallowed
H311	Toxic in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H331	Toxic if inhaled
H351	Suspected of causing cancer
H360	May damage fertility or the unborn child
H370	Causes damage to organs
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.