

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: 8/18/2022 Revision date: 6/27/2023 Supersedes: 8/18/2022 Version: 2.0

SECTION 1: Identification 1.1. Identification Product form : Mixture Product name EPO-TEK® 930-4 PART A : 1.2. Recommended use and restrictions on use Use of the substance/mixture : Adhesives Recommended use Adhesives Not to be used for any purpose other than the one the product was designed for Restrictions on use 1.3. Supplier Manufacturer 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 : VelocityEHS: +1 (800) 255-3924, +1 (813) 248-0585 Emergency number 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 2 H319 Causes serious eye irritation Skin sensitization, Category 1 May cause an allergic skin reaction H317 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) : Warning Hazard statements (GHS US) H315 - Causes skin irritation H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation

Precautionary statements (GHS US)

P273 - Avoid release to the environment.

H411 - Toxic to aquatic life with long lasting effects

P302+P352 - If on skin: Wash with plenty of water.

: 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.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Safety Data Sheet

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

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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.
P337+P313 - If eye irritation persists: 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

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)

Not applicable

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.: 28064-14-4	30 – 60	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1A, H317 Aquatic Chronic 2, H411
Bisphenol A diglycidyl ether resin*	CAS-No.: Trade Secret	10 – 30	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Functionalized acrylate*	CAS-No.: Trade Secret	5 – 30	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317

*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 after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: 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	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.

Safety Data Sheet

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

4.2. Most important symptoms and effects (acute and delayed)			
Symptoms/effects after skin contact Symptoms/effects after eye contact	Irritation. May cause an allergic skin reaction.Eye irritation.		
4.3. Immediate medical attention and special treatment, if necessary			

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing	g media
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
5.2. Specific hazards arising from the chen	nical
Hazardous decomposition products in case of fire	: Toxic fumes may be released.
5.3. Special protective equipment and prec	autions 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 measures				
6.1. Personal precautions, protective equipm	nent 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 a	nd 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.

Safety Data Sheet

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

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
EPO-TEK® 930-4 PART A
No additional information available
Epoxy phenol novolac resin (28064-14-4)
No additional information available
Bisphenol A diglycidyl ether resin
No additional information available
Functionalized acrylate
No additional information available
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/Personal protective equipment

Hand protection:

Wear suitable gloves resistant to chemical penetration. Neoprene or nitrile rubber gloves. Butyl-rubber protective gloves. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Refer to manufacturer's information. Gloves must be replaced after each use and whenever signs of wear or perforation appear

Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9: Physical and	chemical properties		
9.1. Information on basic phy	sical and chemical properties		
Physical state Color	: Liquid : ivory		

Safety Data Sheet

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

Odor	: slight
Odor threshold	: No data available
pH	: 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	: 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.

SECTION 11: Toxicological ir	formation	
11.1. Information on toxicologica	al effects	
Acute toxicity (oral) Acute toxicity (dermal) Acute toxicity (inhalation)	Not classifiedNot classifiedNot classified	

Safety Data Sheet

Bisphenol A diglycidyl ether resin	> 2000 malka body weight Animaly rat Quideling: OECD Quideling 402 (Agute Dermal	
LD50 dermai rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))	
ATE US (oral)	11400 mg/kg body weight	
Functionalized acrylate		
LD50 oral rat	> 5000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)	
LD50 dermal rabbit	3650 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)	
ATE US (oral)	5000 mg/kg body weight	
ATE US (dermal)	3600 mg/kg body weight	
Skin corrosion/irritation Serious eye damage/irritation Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity	 Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Not classified Not classified 	
Bisphenol A diglycidyl ether resin		
NOAEL (chronic,oral,animal/male,2 years)	15 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Guideline: EPA OPPTS 870.4300 (Combined Chronic Toxicity / Carcinogenicity), Guideline: other:MITI, Japanese ministry of international trade and industry, February 1998, Remarks on results: other:Effect type: toxicity (migrated information)	
NOAEL (chronic,oral,animal/female,2 years)	100 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Guideline: EPA OPPTS 870.4300 (Combined Chronic Toxicity / Carcinogenicity), Guideline: other:MITI, Japanese ministry of international trade and industry, February 1998, Remarks on results: other:Effect type: toxicity (migrated information)	
Reproductive toxicity	: Not classified	
STOT-single exposure	: Not classified	
STOT-repeated exposure	: Not classified	
Bisphenol A diglycidyl ether resin		
NOAEL (oral,rat,90 days)	50 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: other:japanese MITI guidelines for toxicity testing of chemicals	
Functionalized acrylate		
NOAEL (oral,rat,90 days)	250 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)	
Aspiration hazard /iscosity, kinematic	Not classified No data available	
Symptoms/effects after skin contact Symptoms/effects after eye contact	: Irritation. May cause an allergic skin reaction. : Eye irritation.	

SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general	: 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

Bisphenol A diglycidyl ether resi	1
LC50 - Fish [1]	1.3 mg/l (96 h, Pisces, Literature study)
EC50 - Crustacea [1]	2 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Nominal concentration)
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'
Functionalized acrylate	
LC50 - Fish [1]	0.38 mg/l
EC50 - Crustacea [1]	2.6 mg/l Test organisms (species): Daphnia magna

12.2. Persistence and degradability

Epoxy phenol novolac resin (28064-14-4)		
Persistence and degradability Biodegradability in soil: no data available.		
Bisphenol A diglycidyl ether resin		
Persistence and degradability Not readily biodegradable in water.		
Functionalized acrylate		
Persistence and degradability Inherently biodegradable.		

12.3. Bioaccumulative potential

Epoxy phenol novolac resin (28064-14-4)		
Bioaccumulative potential No bioaccumulation data available.		
Bisphenol A diglycidyl ether resin		
Partition coefficient n-octanol/water (Log Pow)	3 (Estimated value, 25 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
Functionalized acrylate		
Partition coefficient n-octanol/water (Log Pow)	3.08 Source: HSDB	
Bioaccumulative potential No bioaccumulation data available.		

12.4. Mobility in soil

Bisphenol A diglycidyl ether resin	
Surface tension	59 mN/m (20 °C, 0.09 g/l)
Ecology - soil	No (test)data on mobility of the substance available.

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.

Safety Data Sheet

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

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number DOT NA No

UN-No. (TDG)	:	UN3082
UN-No. (IMDG)	:	3082
UN-No. (IATA)	:	3082

14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Environmentally hazardous substances, liquid, n.o.s. (Epoxy Resin Blend)
Proper Shipping Name (TDG)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin Blend)
Proper Shipping Name (IMDG)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin Blend)
Proper Shipping Name (IATA)	: Environmentally hazardous substance, liquid, n.o.s. (Epoxy Resin Blend)

: UN3082

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) Hazard labels (DOT)



TDG

Transport hazard class(es) (TDG) Hazard labels (TDG)



IMDG

Transport hazard class(es) (IMDG) Hazard labels (IMDG)

: 9 : 9

ΙΑΤΑ

Transport hazard class(es) (IATA) Hazard labels (IATA)



: 111

: 111

: 111

14.4. Packing group

Packing group (DOT) Packing group (TDG) Packing group (IMDG)

Safety Data Sheet

Packing group (IATA)	: III
14.5. Environmental hazards	
Dangerous for the environment Marine pollutant	: Yes : Yes
Other information	: No supplementary information available.
14.6. Special precautions for user	
DOT UN-No.(DOT) DOT Special Provisions (49 CFR 172.102)	: No Limit : 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

TDG Special Provisions	: 16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the hazard or hazards posed by the dangerous goods must be shown, in perceptions on the chinging document following the chinging page in goods with clouds
	parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A) of Part 3 (Documentation). 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) of Part 4 (Dangerous Goods Safety Marks). (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
	(a) 012214, INFECTIOUS SUBSTANCE, AFFECTING HOMANS, 01 (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 handled, offered for transport or transported as UN3077 if there is no visible liquid when the dangerous goods are loaded into a means containment and during transport.
	 (2) These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to the handling, offering for transport or transporting 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 accidental release of the dangerous goods that could
Explosive Limit and Limited Quantity Index	endanger public safety. : 5 L
Excepted quantities (TDG)	: 5L : E1
Emergency Response Guide (ERG) Number	: 171
IMDG Special provision (IMDG)	: 274, 335, 969
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP01, P001
Packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG) Tank instructions (IMDG)	: IBC03 : T4
Tank Instructions (IMDG) 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
IATA 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
CAO max net quantity (IATA)	: 450L

Safety Data Sheet

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

Special provision (IATA) ERG code (IATA) : A97, A158, A197, A215 : 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

15.2. International regulations

CANADA

Epoxy phenol novolac resin (28064-14-4)

Listed on the Canadian DSL (Domestic Substances List)

Bisphenol A diglycidyl ether resin

Listed on the Canadian DSL (Domestic Substances List)

Functionalized acrylate

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Functionalized acrylate

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

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date : 06/27/2023

Full text of H-phrases	
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H411	Toxic to aquatic life with long lasting effects

Safety Data Sheet (SDS), USA

Safety Data Sheet

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

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.



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: 8/18/2022 Revision date: 6/27/2023 Supersedes: 8/18/2022 Version: 2.0

SECTION 1: Identification 1.1. Identification Product form : Mixture : EPO-TEK® 930-4 PART B Product name 1.2. Recommended use and restrictions on use 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 Manufacturer 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 : VelocityEHS: +1 (800) 255-3924, +1 (813) 248-0585 Emergency number SECTION 2: Hazard(s) identification 2.1. Classification of the substance or mixture **GHS US classification** Acute toxicity (oral) Category 4 H302 Harmful if swallowed

Skin corrosion/irritation Category 1B	H314	Causes severe skin burns and eye damage
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
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
- : H302 Harmful if swallowed
 - H314 Causes severe skin burns and eye damage
 - 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
- : 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.

Safety Data Sheet

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

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	2 - Contaminated work clothing must not be allowed out of the workplace.
P280) - Wear protective gloves/protective clothing/eye protection/face protection.
P301	+P312 - If swallowed: Call a poison center or doctor if you feel unwell.
P301	+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.
P302	2+P352 - If on skin: Wash with plenty of water.
P303	8+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse
skin	with water/shower.
P304	I+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305	5+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove
conta	act lenses, if present and easy to do. Continue rinsing.
P308	8+P313 - If exposed or concerned: Get medical advice/attention.
P310) - Immediately call a poison center or doctor.
P321	- Specific treatment (see supplemental first aid instruction on this label).
P330) - Rinse mouth.
P333	8+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P363	3 - Wash contaminated clothing before reuse.
P405	5 - Store locked up.
P501	- Dispose of contents/container to hazardous or special waste collection point, in
acco	rdance with local, regional, national and/or international regulation.
result in classific:	tion

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)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Substituted imidazole*	CAS-No.: Trade Secret	30 – 60	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1B, H317
Imidazole	CAS-No.: 288-32-4	≥ 30	Acute Tox. 4 (Oral), H302 Skin Corr. 1C, H314 Eye Dam. 1, H318 Repr. 1B, H360
Substituted imidazole*	CAS-No.: Trade Secret	5 – 10	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Skin Corr. 1B, H314 Eye Dam. 1, H318 Carc. 2, H351

Safety Data Sheet

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

Name	Product identifier	%	GHS US classification
Substituted imidazole*	CAS-No.: Trade Secret	< 5	Acute Tox. 3 (Oral), H301 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335
Substituted anhydride*	CAS-No.: Trade Secret	< 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314

*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 after inhalation :	Call a physician immediately. Remove person to fresh air and keep comfortable for breathing. Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.
,	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. Rinse mouth. Do not induce vomiting. Call a physician immediately.
4.2. Most important symptoms and effects (a	cute and delayed)
Symptoms/effects after eye contact :	Burns. May cause an allergic skin reaction. Serious damage to eyes. Burns.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media			
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.		
5.2. Specific hazards arising from the chemical			
Hazardous decomposition products in case of fire	: Toxic fumes may be released.		
5.3. Special protective equipment and precautions 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 measures
6.1. Personal precautions, protective equipment and emergency procedures
6.1.1. For non-emergency personnel

Emergency procedures

: Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapors/spray.

Safety Data Sheet

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

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. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up		
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	3
7.1. Precautions for safe handling	
Precautions for safe handling	: 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 Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray.
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 any incompatibilities

Storage conditions

: Store locked up. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

EPO-TEK® 930-4 PART B
No additional information available
Substituted imidazole
No additional information available
Imidazole (288-32-4)
No additional information available
Substituted anhydride
No additional information available
Substituted imidazole
No additional information available
Substituted imidazole
No additional information available

Safety Data Sheet

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

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/Personal protective equipment

Hand protection:

Wear suitable gloves resistant to chemical penetration. Neoprene or nitrile rubber gloves. Butyl-rubber protective gloves. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Refer to manufacturer's information. Gloves must be replaced after each use and whenever signs of wear or perforation appear

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: amber
Odor	: slight
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	: 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

Safety Data Sheet

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

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 (dermal)	Harmful if swallowed. Not classified Not classified
EPO-TEK® 930-4 PART B	
ATE US (oral)	490.339 mg/kg body weight
Substituted imidazole	
ATE US (oral)	100 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))
ATE US (oral)	960 mg/kg body weight
Substituted anhydride	
LD50 oral rat	≈ 1144 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Remarks on results: other:
LD50 dermal rabbit	400 – 640 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
ATE US (oral)	500 mg/kg body weight
ATE US (dermal)	400 mg/kg body weight

Safety Data Sheet

350	150 mg/kg Source: IUCLID
440	40 mg/kg Source: IUCLID
173	73 mg/kg body weight
440	40 mg/kg body weight
· ·	
731	31 mg/kg (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral)
	400 mg/kg (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental ralue, Dermal)
	0.03 mg/l (Equivalent or similar to OECD 403, 8 h, Rat, Male / female, Experimental value, maximum achievable concentration), Inhalation (vapours))
731	'31 mg/kg body weight
: Caus	auses severe skin burns.
	auses serious eye damage.
ation : May	ay cause an allergic skin reaction.
	ot classified
: Susp	uspected of causing cancer.
2B -	B - Possibly carcinogenic to humans
: May	ay damage fertility or the unborn child.
: Not o	ot classified
Мау	flay cause respiratory irritation.
: Not o	ot classified
	0 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Dral Toxicity in Rodents)
)	
Ora	0 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Dral Toxicity Study in Rodents), Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
· ·	
Dos Guid	50 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)
: Not o	ot classified
: No d	o data available
	urns. May cause an allergic skin reaction.
	erious damage to eyes.
: Not o : No d n contact : Burn	ot classified o data available urns. May cause an allergic skin reaction. erious damage to eyes.

Safety Data Sheet

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

SECTION 12: Ecological information

12.1. Toxicity	
Ecology - general :	Before neutralisation, the product may represent a danger to aquatic organisms.
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)
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
Substituted anhydride	
LC50 - Fish [1]	100 – 215 mg/l Test organisms (species): Leuciscus idus
EC50 - Crustacea [1]	267.94 mg/l Test organisms (species): Daphnia magna
Substituted imidazole	
LC50 - Fish [1]	0.34 mg/l Source: IUCLID
EC50 - Crustacea [1]	180 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)

12.2. Persistence and degradability

Imidazole (288-32-4)	
Persistence and degradability	Readily biodegradable in the soil. Readily biodegradable in water.
Substituted anhydride	
Persistence and degradability	Not readily biodegradable in water.
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.
12.3. Bioaccumulative potential	
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)

Safety Data Sheet

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

Imidazole (288-32-4)	
Bioaccumulative potential	Not bioaccumulative.
Substituted anhydride	
Partition coefficient n-octanol/water (Log Pow)	-0.06 Source: ChemIDplus
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).

12.4. 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.
Substituted anhydride	
Mobility in soil	15.75 Source: Quantitative Structure Activity Relation
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.

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

In accordance with DOT / TDG / IMDG / IATA

Safety Data Sheet

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

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations	
14.1. UN number	
DOT NA No UN-No. (TDG) UN-No. (IMDG) UN-No. (IATA)	: UN3267 : UN3267 : 3267 : 3267
14.2. UN proper shipping name	
Proper Shipping Name (DOT) Proper Shipping Name (TDG) Proper Shipping Name (IMDG) Proper Shipping Name (IATA)	 Corrosive liquid, basic, organic, n.o.s. (Imidazole)
14.3. Transport hazard class(es)	
DOT Transport hazard class(es) (DOT) Hazard labels (DOT)	: 8 : 8 CORROSIVE
TDG Transport hazard class(es) (TDG) Hazard labels (TDG)	: 8 : 8
IMDG Transport hazard class(es) (IMDG) Hazard labels (IMDG)	: 8 : 8

ΙΑΤΑ

Transport hazard class(es) (IATA) Hazard labels (IATA)

: 8 : 8

: III : III : III : III

14.4. Packing group

Packing group (DOT)	
Packing group (TDG)	
Packing group (IMDG)	
Packing group (IATA)	

Safety Data Sheet

14.5. Environmental hazards	
Other information	: No supplementary information available.
14.6. Special precautions for user	
DOT UN-No.(DOT) DOT Special Provisions (49 CFR 172.102)	 UN3267 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). T7 - 4 178.274(d)(2) Normal
DOT Packaging Exceptions (49 CFR 173.xxx) DOT Packaging Non Bulk (49 CFR 173.xxx) DOT Packaging Bulk (49 CFR 173.xxx) DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) DOT Vessel Stowage Location	: 60 L : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a
DOT Vessel Stowage Other	passenger vessel. : 40 - Stow "clear of living quarters",52 - Stow "separated from" acids
TDG UN-No. (TDG) TDG Special Provisions	 UN3267 16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the hazard or hazards 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) of Part 3 (Documentation). 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) of Part 4 (Dangerous Goods Safety Marks). (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.
Explosive Limit and Limited Quantity Index Excepted quantities (TDG) Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index Emergency Response Guide (ERG) Number	: 5L : E1 : 5L : 153

Safety Data Sheet

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

: 223, 274
: 5L
: E1
: P001, LP01
: IBC03
: T7
: TP1, TP28
: F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
: S-B - SPILLAGE SCHEDULE Bravo - CORROSIVE SUBSTANCES
: A
: Reacts violently with acids. Causes burns to skin, eyes and mucous membranes.
: E1
: Y841
: 1L
: 852
: 5L
: 856
: 60L
: A3, A803
: 8L

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

15.2. International regulations

CANADA

Substituted imidazole

Listed on the Canadian DSL (Domestic Substances List)

Imidazole (288-32-4)

Listed on the Canadian DSL (Domestic Substances List)

Substituted anhydride

Listed on the Canadian DSL (Domestic Substances List)

Substituted imidazole

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

Substituted imidazole

Listed on the Canadian DSL (Domestic Substances List)

Safety Data Sheet

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

EU-Regulations

No additional information available

National regulations

Imidazole (288-32-4)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Substituted anhydride

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Substituted imidazole

Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

This product can expose you to Substituted imidazole, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Revision date : 06/27/2023

Full text of H-phrases	
H301	Toxic if swallowed
H302	Harmful if swallowed
H311	Toxic in contact with skin
H312	Harmful 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
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H360	May damage fertility or the unborn child

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.