

SAFETY DATA SHEET

complies with OSHA Hazard Communication Standard 29 CFR 1910.1200

Heraeus

PD 955 M SMT-ADHESIVE, 37 G, S3

1220

Version
7.0

Revision Date:
07/09/2021

Date of last issue: 10/02/2020
Date of first issue: 03/23/2017

SECTION 1. IDENTIFICATION

Product name : PD 955 M SMT-ADHESIVE, 37 G, S3

Product code : 89950252

Manufacturer or supplier's details

Company name of supplier : Heraeus Precious Metals North America
Conshohocken LLC

Address : Union Hill Road 24
West Conshohocken 19428

Emergency telephone : +49 6132-84463
International Emergency Number
This telephone number is available 24 hours per day, 7 days per week.

E-mail address of person responsible for the SDS : sds@heraeus.com
(Heraeus Holding: EHS Chemical Safety)

Recommended use of the chemical and restrictions on use

Recommended use : Electrical industry and electronics
Industrial use ≤ 5 L

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin irritation : Category 2

Skin sensitization : Category 1

Germ cell mutagenicity : Category 2

Reproductive toxicity : Category 1B

GHS label elements

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.
H360F May damage fertility.

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Precautionary Statements

Prevention:

P201 Obtain special instructions before use.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : organic

Components

Chemical name	CAS-No.	Concentration (% w/w)
Bisphenol-F-epichlorhydrin-epoxy resin	9003-36-5	$\geq 20 - < 30$
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	25068-38-6	$\geq 20 - < 30$
2,3-Epoxypropyl neodecanoate	26761-45-5	$\geq 10 - < 20$
Dimethyl Siloxane reaction with silica	67762-90-7	$\geq 5 - < 10$
Zeolites	1318-02-1	$\geq 1 - < 5$
Bisphenol A	80-05-7	$\geq 0.1 - < 1$

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : First aider needs to protect himself.
Move out of dangerous area.
Show this material safety data sheet to the doctor in attendance.

If inhaled : Move to fresh air.
Get medical attention.

In case of skin contact : Take off all contaminated clothing immediately.
Wash off with:
Polyethylene glycol 400.

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Obtain medical attention.

- | | | |
|---|---|---|
| In case of eye contact | : | In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Keep eye wide open while rinsing.
Protect unharmed eye.
Call a physician immediately. |
| If swallowed | : | Immediately give large quantities of water to drink.
Do NOT induce vomiting.
Get medical attention immediately. |
| Most important symptoms and effects, both acute and delayed | : | Causes skin irritation.
May cause an allergic skin reaction.
Suspected of causing genetic defects.
May damage fertility. |
| Notes to physician | : | Treat symptomatically. |

SECTION 5. FIRE-FIGHTING MEASURES

- | | | |
|--|---|---|
| Suitable extinguishing media | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Specific hazards during fire fighting | : | Exposure to decomposition products may be a hazard to health. |
| Hazardous combustion products | : | Carbon oxides
Carbon monoxide |
| Further information | : | Use a water spray to cool fully closed containers.
Prevent fire extinguishing water from contaminating surface water or the ground water system. |
| Special protective equipment for fire-fighters | : | In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

- | | | |
|---|---|---|
| Personal precautions, protective equipment and emergency procedures | : | Follow safe handling advice and personal protective equipment recommendations.
Ensure adequate ventilation.
Evacuate personnel to safe areas.
Refer to protective measures listed in sections 7 and 8. |
| Environmental precautions | : | Do not allow contact with soil, surface or ground water.
Do not let product enter drains.
If the product contaminates rivers and lakes or drains inform respective authorities. |

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Methods and materials for containment and cleaning up : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Sweep up or vacuum up spillage and collect in suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms. Wear personal protective equipment. Avoid inhalation, ingestion and contact with skin and eyes. Smoking, eating and drinking should be prohibited in the application area.

Conditions for safe storage : Keep tightly closed in a dry, cool and well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Dimethyl Siloxane reaction with silica	67762-90-7	TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m ³ / %SiO ₂ (Silica)	OSHA Z-3
Zeolites	1318-02-1	TWA (Respirable particulate matter)	1 mg/m ³ (Aluminum)	ACGIH

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Filter type : Recommended Filter type:

Filter type ABEK-P

Hand protection

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Remarks	: Before removing gloves clean them with soap and water. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. As the product is a mixture of several substances, the durability of the glove materials cannot be calculated in advance and has to be tested before use.
Eye protection	: Safety glasses with side-shields
Skin and body protection	: Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	: Keep away from food and drink. Wash hands before breaks and at the end of workday. Keep working clothes separately. Remove and wash contaminated clothing and gloves, including the inside, before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: paste
Color	: red
Odor	: mild
Odor Threshold	: No data available
pH	: Not applicable
Melting point/range	: No data available
Boiling point/boiling range	: > 392 °F / > 200 °C (1,013 hPa)
Flash point	: > 212 °F / > 100 °C (1,013 hPa)
Evaporation rate	: No data available
Flammability (solid, gas)	: Not applicable

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Self-ignition	:	Not applicable
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	$\leq 1,100$ hPa (122 °F / 50 °C)
Relative vapor density	:	No data available
Relative density	:	No data available
Density	:	1.188 g/cm ³ (73 °F / 23 °C, 1,013 hPa)
Solubility(ies)		
Water solubility	:	insoluble (68 °F / 20 °C, 1,013 hPa)
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	1,000 mPa.s (73 °F / 23 °C)
Viscosity, kinematic	:	> 40 mm ² /s (73 °F / 23 °C) > 20.5 mm ² /s (104 °F / 40 °C)
Explosive properties	:	Not applicable
Oxidizing properties	:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	:	No data available

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Incompatible materials : No data available

Hazardous decomposition products : No data available

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Components:

Bisphenol-F-epichlorhydrin-epoxy resin:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 420
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Dimethyl Siloxane reaction with silica:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Zeolites:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 3.35 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Bisphenol A:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 401

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Acute inhalation toxicity : LC50 (Rat): > 0.17 mg/l
Exposure time: 6 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): 2,230 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Components:

Bisphenol-F-epichlorhydrin-epoxy resin:

Species : Rabbit
Result : Skin irritation

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

Species : Rabbit
Method : OECD Test Guideline 404
Result : Skin irritation

Zeolites:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

Bisphenol A:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Bisphenol-F-epichlorhydrin-epoxy resin:

Species : Rabbit
Result : No eye irritation

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405

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Zeolites:

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405

Bisphenol A:

Species : Rabbit
Result : Irreversible effects on the eye
Method : OECD Test Guideline 405

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

Components:

Bisphenol-F-epichlorhydrin-epoxy resin:

Test Type : Local lymph node assay (LLNA)
Routes of exposure : Skin contact
Species : Mouse
Method : OECD Test Guideline 429
Result : positive

Assessment : Probability or evidence of skin sensitization in humans

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

Test Type : Local lymph node assay (LLNA)
Routes of exposure : Skin contact
Species : Mouse
Method : OECD Test Guideline 429
Result : positive

Assessment : Probability or evidence of skin sensitization in humans

Zeolites:

Test Type : Buehler Test
Routes of exposure : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
Result : negative

Bisphenol A:

Assessment : Probability or evidence of skin sensitization in humans
Remarks : Based on harmonised classification in EU regulation

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1272/2008, Annex VI

Germ cell mutagenicity

Suspected of causing genetic defects.

Components:

Bisphenol-F-epichlorhydrin-epoxy resin:

- Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: positive
- Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: positive
- Genotoxicity in vivo : Test Type: Mammalian spermatogonial chromosome aberration test (in vivo)
Species: Hamster
Application Route: Ingestion
Result: negative
- Germ cell mutagenicity - Assessment : Weight of evidence does not support classification as a germ cell mutagen.

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

- Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on data from similar materials
- Genotoxicity in vivo : Test Type: Mammalian spermatogonial chromosome aberration test (in vivo)
Species: Mouse
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Zeolites:

- Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
- Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: positive
- Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative

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Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative

Bisphenol A:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: Chromosome aberration test in vitro
Species: Mouse
Application Route: Ingestion
Result: negative

Carcinogenicity

Not classified based on available information.

Components:

Bisphenol-F-epichlorhydrin-epoxy resin:

Species : Mouse
Application Route : Skin contact
Exposure time : 104 weeks
Result : negative

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

Species : Rat
Application Route : Ingestion
Exposure time : 24 month(s)
Method : OECD Test Guideline 453
Result : negative
Remarks : Based on data from similar materials

Zeolites:

Species : Rat
Application Route : Ingestion
Exposure time : 104 weeks
Result : negative

Species : Rat
Application Route : inhalation (dust/mist/fume)
Exposure time : 22 Months
Result : negative

Bisphenol A:

Species : Rat

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Application Route : Ingestion
Exposure time : 103 weeks
Result : negative

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

May damage fertility.

Components:

Bisphenol-F-epichlorhydrin-epoxy resin:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 416
Result: negative
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rabbit
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 416
Result: negative
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative
Remarks: Based on data from similar materials

Zeolites:

Effects on fetal development : Test Type: Embryo-fetal development

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Species: Rat
Application Route: Ingestion
Result: negative

Bisphenol A:

Effects on fertility : Test Type: Three-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: positive

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Result: negative

Reproductive toxicity - Assessment : Clear evidence of adverse effects on sexual function and fertility, based on animal experiments.

STOT-single exposure

Not classified based on available information.

Components:

Bisphenol A:

Assessment : May cause respiratory irritation.

STOT-repeated exposure

Not classified based on available information.

Components:

Zeolites:

Assessment : No significant health effects observed in animals at concentrations of 0.2 mg/l/6h/d or less.

Repeated dose toxicity

Components:

Bisphenol-F-epichlorhydrin-epoxy resin:

Species : Rat
NOAEL : 250 mg/kg
Application Route : Ingestion
Exposure time : 13 Weeks
Method : OECD Test Guideline 408

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

Species : Rat

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NOAEL : 50 mg/kg
LOAEL : 250 mg/kg
Application Route : Ingestion
Exposure time : 14 Weeks
Method : OECD Test Guideline 408
Remarks : Based on data from similar materials

Zeolites:

Species : Rat
NOAEL : 250 - 300 mg/kg
Application Route : Ingestion
Exposure time : 90 Days

Species : Monkey
LOAEL : 0.001 mg/l
Application Route : inhalation (dust/mist/fume)
Exposure time : 24 Months

Bisphenol A:

Species : Rat
LOAEL : 120 mg/kg
Application Route : Ingestion
Exposure time : 2 yr

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Bisphenol-F-epichlorhydrin-epoxy resin:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 62.5 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 72 h

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.3 mg/l
Exposure time: 21 d

Toxicity to microorganisms : IC50: > 100 mg/l

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Exposure time: 3 h
Remarks: Based on data from similar materials

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 1.2 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.1 mg/l
Exposure time: 48 h
- Toxicity to algae/aquatic plants : EC50 (Scenedesmus capricornutum (fresh water algae)): > 11 mg/l
Exposure time: 72 h

NOEC (Scenedesmus capricornutum (fresh water algae)): 4.2 mg/l
Exposure time: 72 h
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.3 mg/l
Exposure time: 21 d
- Toxicity to microorganisms : IC50: > 100 mg/l
Exposure time: 3 h

Zeolites:

- Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: ISO 6341
- Toxicity to algae/aquatic plants : EL50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 201

NOELR (Desmodesmus subspicatus (green algae)): > 1 mg/l
Exposure time: 72 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 201
- Toxicity to fish (Chronic toxicity) : NOELR (Pimephales promelas (fathead minnow)): > 1 mg/l
Exposure time: 30 d
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR (Daphnia magna (Water flea)): > 1 mg/l
Exposure time: 21 d

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ic toxicity)

Method: OECD Test Guideline 211

Toxicity to microorganisms : EC50 (*Pseudomonas putida*): > 100 mg/l
Exposure time: 16 h
Method: DIN 38 412 Part 8

Bisphenol A:

Toxicity to fish : LC50 (*Pimephales promelas* (fathead minnow)): 4.6 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (*Daphnia magna* (Water flea)): 10.2 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (*Pseudokirchneriella subcapitata* (green algae)): 2.73 mg/l
Exposure time: 96 h

EC10 (*Pseudokirchneriella subcapitata* (green algae)): 1.36 mg/l
Exposure time: 96 h

Toxicity to fish (Chronic toxicity) : NOEC (*Cyprinus carpio* (Carp)): 100 µg/l
Exposure time: 49 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (*Mysidopsis bahia* (opossum shrimp)): 0.37 mg/l
Exposure time: 28 d
Method: OPPTS 850.1350

Toxicity to microorganisms : EC10 (*Pseudomonas putida*): > 320 mg/l
Exposure time: 18 h

Persistence and degradability

Components:

Bisphenol-F-epichlorhydrin-epoxy resin:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 0 %
Exposure time: 28 d
Method: Regulation (EC) No. 440/2008, Annex, C.4-E

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 5 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

Bisphenol A:

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Biodegradability : Result: Readily biodegradable.
Biodegradation: 89 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

Bioaccumulative potential

Components:

Bisphenol-F-epichlorhydrin-epoxy resin:

Partition coefficient: n- : log Pow: 3.6
octanol/water

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700):

Partition coefficient: n- : log Pow: 3.26
octanol/water

Zeolites:

Bioaccumulation : Species: Oysters
Bioconcentration factor (BCF): 0.34 - 1.44

Partition coefficient: n- : Remarks: No data available
octanol/water

Bisphenol A:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): 5.1 - 67

Partition coefficient: n- : log Pow: 3.4
octanol/water

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

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SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging : Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Not applicable for product as supplied.

Domestic regulation

DOT

Not regulated as a dangerous good

Remarks : When carried in single packaging or inner packaging of 5kg/ 5L or less, this material is not subject to the transport regulations, the single packaging or inner packaging must not be UN-approved but must be a good quality packaging and suitable for the medium.

Special precautions for user

Remarks : When carried in single packaging or inner packaging of 5kg/ 5L or less, this material is not subject to the transport regulations, the single packaging or inner packaging must not be UN-approved but must be a good quality packaging and suitable for the medium.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Phenol	108-95-2	1000	*

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*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Phenol	108-95-2	1000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Respiratory or skin sensitization
Germ cell mutagenicity
Reproductive toxicity
Skin corrosion or irritation

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

Phenol	108-95-2	>= 0 - < 0.1 %
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The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

Phenol	108-95-2	>= 0 - < 0.1 %
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US State Regulations

Massachusetts Right To Know

Phenol	108-95-2
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Pennsylvania Right To Know

Bisphenol-F-epichlorhydrin-epoxy resin	9003-36-5
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	25068-38-6
Not a hazardous substance	Not Assigned
2,3-Epoxypropyl neodecanoate	26761-45-5

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Dimethyl Siloxane reaction with silica	67762-90-7
Bisphenol A	80-05-7
Phenol	108-95-2

Maine Chemicals of High Concern

Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Bisphenol A	80-05-7
Phenol	108-95-2

Washington Chemicals of High Concern

Bisphenol A	80-05-7
Phenol	108-95-2

California Prop. 65

WARNING: This product can expose you to chemicals including Bisphenol A, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

The ingredients of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

Other regulations

Storage class (TRGS 510) : 10: Combustible liquids

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH	: USA. ACGIH Threshold Limit Values (TLV)
OSHA Z-3	: USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
ACGIH / TWA	: 8-hour, time-weighted average
OSHA Z-3 / TWA	: 8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized Sys-

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tem; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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