## EPIBOND® 1217 A US

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## SECTION 1. IDENTIFICATION

Product name : EPIBOND® 1217 A US

## Manufacturer or supplier's details

Company name of supplier : Huntsman Advanced Materials Americas LLC
Address
: P.O. Box 4980
The Woodlands,
TX 77387
United States of America (USA)
Telephone : Non-Emergency: (800) 257-5547
E-mail address of person : MSDS@huntsman.com
responsible for the SDS
Emergency telephone number : Chemtrec: (800) 424-9300 or (703) 527-3887

Recommended use of the chemical and restrictions on use
Recommended use : Epoxy constituents

## SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200
Skin irritation
Eye irritation
Skin sensitisation : Category 1
Acute aquatic toxicity : Category 2
Chronic aquatic toxicity : Category 2

GHS label elements
Hazard pictograms
:


| Signal word | Warning |
| :---: | :---: |
| Hazard statements | H315 Causes skin irritation. <br> H317 May cause an allergic skin reaction. <br> H319 Causes serious eye irritation. <br> H411 Toxic to aquatic life with long lasting effects. |
| Precautionary statements | Prevention: <br> P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling. <br> P272 Contaminated work clothing should not be allowed out of |


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the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/ eye protection/ face protection.
Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and 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.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P391 Collect spillage.

## Storage:

Not available
Disposal:
P501 Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.

## Other hazards

None known.

## SECTION 3. COMPOSITIONIINFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

| Chemical name | CAS-No. | Concentration (\% w/w) |
| :--- | :--- | :---: |
| Bisphenol A epoxy resin | $25068-38-6$ | $90-100$ |
| Silicon, amorphous | $112945-52-5$ | $1-5$ |

The specific chemical identity and/or exact percentage (concentration) of composition may be withheld as a trade secret.

## SECTION 4. FIRST AID MEASURES

| General advice | Move out of dangerous area. <br> Show this safety data sheet to the doctor in attendance. <br> Do not leave the victim unattended. |
| :---: | :---: |
| If inhaled | If unconscious, place in recovery position and seek medical advice. <br> If symptoms persist, call a physician. |
| In case of skin contact | If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes. |
| In case of eye contact | Immediately flush eye(s) with plenty of water. Remove contact lenses. <br> Protect unharmed eye. |


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If swallowed
Most important symptoms
and effects, both acute and
delayed

Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
: Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
: None known. and effects, both acute and delayed

## SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media
Unsuitable extinguishing media

Specific hazards during : No data is available on the product itself. firefighting

Hazardous combustion products

Specific extinguishing : No data is available on the product itself. methods

Further information

Special protective equipment for firefighters
: No data is available on the product itself.
: High volume water jet

Do not allow run-off from fire fighting to enter drains or water courses.
: No hazardous combustion products are known

No data is available on the product itself.
: Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
: Wear self-contained breathing apparatus for firefighting if necessary.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, : Use personal protective equipment. protective equipment and emergency procedures

Environmental precautions
: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for : Soak up with inert absorbent material (e.g. sand, silica gel,

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containment and cleaning up
acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

## SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion

Advice on safe handling

Conditions for safe storage

Materials to avoid
: Normal measures for preventive fire protection.
: Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.
: Strong acids
Strong bases
Strong oxidizing agents

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

| Components | CAS-No. | Value type <br> (Form of <br> exposure) | Control <br> parameters / <br> Permissible <br> concentration | Basis |
| :--- | :--- | :--- | :--- | :--- |
| Silicon, amorphous | $112945-52-5$ | TWA (Dust) | 20 Million <br> particles per cubic <br> foot <br> (Silica) | OSHA Z-3 |
|  |  | TWA (Dust) | $80 \mathrm{mg} / \mathrm{m} /$ <br> $\%$ SiO2 <br> $($ Silica $)$ | OSHA Z-3 |

## Personal protective equipment

| Hand protection |  |
| :--- | :--- |
| Material | butyl-rubber |
| Break through time | $:>8 \mathrm{~h}$ |


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|  | Solvent-resistant gloves (butyl-rubber) Nitrile rubber 10-480 min |
| :---: | :---: |
|  | Neoprene gloves |
| Remarks | The suitability for a specific workplace should be discussed with the producers of the protective gloves. |
| Eye protection | Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems. |
| 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 | When using do not eat or drink. <br> When using do not smoke. <br> Wash hands before breaks and at the end of workday. |

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance | : paste |
| :--- | :--- |
| Colour | : translucent |
| Odour | $:$ slight |

Odour Threshold : No data is available on the product itself.
$\mathrm{pH} \quad:$ No data is available on the product itself.
Freezing point : No data is available on the product itself.
Melting poin
No data is available on the product itself.
Boiling point : > $200^{\circ} \mathrm{C}$
Flash point : $254{ }^{\circ} \mathrm{C}$ Method: Pensky-Martens closed cup, closed cup

Evaporation rate : No data is available on the product itself.
Flammability (solid, gas) : No data is available on the product itself.
Flammability (liquids) : No data is available on the product itself.
Upper explosion limit : No data is available on the product itself.
Lower explosion limit : No data is available on the product itself.
Vapour pressure $:<0.0001 \mathrm{hPa}\left(20^{\circ} \mathrm{C}\right)$

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| Relative vapour density | $:$ No data is available on the product itself. |
| :--- | :--- |
| Relative density | $: 1.2$ |
| Density | $: 1.2 \mathrm{~g} / \mathrm{cm} 3\left(25^{\circ} \mathrm{C}\right)$ |
| Solubility(ies) |  |
| Water solubility | $:$ practically insoluble $\left(20^{\circ} \mathrm{C}\right)$ |
| Solubility in other solvents | $:$ No data is available on the product itself. |
| Partition coefficient: n- <br> octanol/water <br> Auto-ignition temperature | $:$ No data is available on the product itself. |
| Decomposition temperature | $:>200^{\circ} \mathrm{C}$ |
| Self-Accelerating available on the product itself. |  |
| decomposition temperature |  |
| (SADT) | $:$ No data is available on the product itself. |
| Viscosity |  |
| Explosive properties | $:$ No data is available on the product itself. |
| Oxidizing properties | No data is available on the product itself. |
| Particle size | No data is available on the product itself. |

## SECTION 10. STABILITY AND REACTIVITY

| Reactivity | $:$ No decomposition if stored and applied as directed. |
| :--- | :---: | :--- |
| Chemical stability <br> Possibility of hazardous <br> reactions <br> Conditions to avoid | $:$ No decomposition if stored and applied as directed. |
| Hazardous decomposition <br> products | $:$ No decomposition if stored and applied as directed. |
|  | Carbon oxides |
|  | Burning produces noxious and toxic fumes. |

## SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : No data is available on the product itself.
exposure
Acute toxicity

## Components:

Bisphenol A epoxy resin:
Acute oral
: LD50 (Rat, female): > 2,000 mg/kg
Method: OECD Test Guideline 420

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Assessment: The substance or mixture has no acute oral toxicity

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

## Components:

Silicon, amorphous:
Acute inhalation toxicity : LC50 (Rat, male and female): > $58.8 \mathrm{mg} / \mathrm{l}$ Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

## Components:

Bisphenol A epoxy resin:
Acute dermal toxicity
: LD50 (Rat, male and female): > 2,000 mg/kg Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Silicon, amorphous:
Acute dermal toxicity : LD50 (Rabbit): >5,000 mg/kg

Acute toxicity (other routes of : No data available administration)

## Skin corrosion/irritation

Product:
Remarks: May cause skin irritation and/or dermatitis.

## Serious eye damage/eye irritation

Product:
Remarks: May cause irreversible eye damage.

## Respiratory or skin sensitisation

Product:
Remarks: Causes sensitisation.

Assessment: No data available

Germ cell mutagenicity
Components:
Bisphenol A epoxy resin:

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## Genotoxicity in vitro

: Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476
Result: positive
Concentration: 0-5000 ug/plate
Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471
Result: positive
Silicon, amorphous:
Genotoxicity in vitro
: Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative

## Components:

Bisphenol A epoxy resin:
Genotoxicity in vivo
: Cell type: Germ
Application Route: Oral
Method: OECD Test Guideline 478
Result: negative
Cell type: Somatic
Application Route: Oral
Dose: 0-5000 mg/kg
Method: OPPTS 870.5395
Result: negative
Silicon, amorphous:
Genotoxicity in vivo
: Application Route: Inhalation
Dose: $50 \mathrm{mg} / \mathrm{m} 3$
Result: negative

## Components:

Bisphenol A epoxy resin:
Germ cell mutagenicity-
Assessment
: Weight of evidence does not support classification as a germ cell mutagen.

Germ cell mutagenicity- : No data available
Assessment

## Carcinogenicity

Components:
Bisphenol A epoxy resin:
Species: Rat, (male and female)

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Application Route: Oral
Exposure time: 24 month(s)
Dose: $15 \mathrm{mg} / \mathrm{kg}$
Frequency of Treatment: 7 days/week
Method: OECD Test Guideline 453
Result: negative
Species: Mouse, (male)
Application Route: Dermal
Exposure time: 24 month(s)
Dose: $0.1 \mathrm{mg} / \mathrm{kg}$
Frequency of Treatment: 3 days/week
Method: OECD Test Guideline 453
Result: negative
Species: Rat, (female)
Application Route: Dermal
Exposure time: 24 month(s)
Dose: $1 \mathrm{mg} / \mathrm{kg}$
Frequency of Treatment: 5 days/week
Method: OECD Test Guideline 453
Result: negative
Silicon, amorphous:
Species: Rat, (male and female)
Application Route: Oral
Exposure time: 103 weeks
Dose: 1800-3200 mg/kg
Frequency of Treatment: 7 daily
Method: OECD Test Guideline 453
Result: negative
Carcinogenicity - : No data available
Assessment

IARC

ACGIH

OSHA

NTP

Reproductive toxicity
Components:
Bisphenol A epoxy resin:
Effects on fertility

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

No component of this product present at levels greater than or equal to $0.1 \%$ is identified as a carcinogen or potential carcinogen by ACGIH.

No component of this product present at levels greater than or equal to $0.1 \%$ is identified as a carcinogen or potential carcinogen by OSHA.

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

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| :---: | :---: | :---: | :---: |
|  |  | Species: Rat | and female |
|  |  | Application R | Oral |
|  |  | Dose: >750 | am per kilogram |
|  |  | General Tox $\mathrm{mg} / \mathrm{kg}$ body | Parent: No-observed-effect level: 540 t |
|  |  | General Tox body weight | 1: No-observed-effect level: $540 \mathrm{mg} / \mathrm{kg}$ |
|  |  | Symptoms: | verse effects |
|  |  | Method: OECD | st Guideline 416 |
|  |  | Result: No developmen | on fertility and early embryonic detected |

## Components:

Bisphenol A epoxy resin:

Effects on foetal development
: Species: Rabbit, female
Application Route: Dermal
General Toxicity Maternal: No observed adverse effect level:
$30 \mathrm{mg} / \mathrm{kg}$ body weight
Method: Other guidelines
Result: No teratogenic effects
Species: Rabbit, female
Application Route: Oral
General Toxicity Maternal: No observed adverse effect level:
$60 \mathrm{mg} / \mathrm{kg}$ body weight
Method: OECD Test Guideline 414
Result: No teratogenic effects
Species: Rat, female
Application Route: Oral
General Toxicity Maternal: No observed adverse effect level:
$180 \mathrm{mg} / \mathrm{kg}$ body weight
Method: OECD Test Guideline 414
Result: No teratogenic effects
Silicon, amorphous:

## Species: Mouse

Application Route: Oral
General Toxicity Maternal: No observed adverse effect level:
$1,340 \mathrm{mg} / \mathrm{kg}$ body weight
Method: OECD Test Guideline 414
Result: No teratogenic effects
Species: Rabbit
Application Route: Oral
General Toxicity Maternal: No observed adverse effect level:
$1,600 \mathrm{mg} / \mathrm{kg}$ body weight
Method: OECD Test Guideline 414
Result: No teratogenic effects
Species: Rat
Application Route: Oral
General Toxicity Maternal: No observed adverse effect level:
$1,350 \mathrm{mg} / \mathrm{kg}$ body weight
Method: OECD Test Guideline 414

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|  |  | Result: No teratogenic effects |

## STOT - single exposure

No data available

## STOT - repeated exposure

No data available

## Repeated dose toxicity

## Components:

Bisphenol A epoxy resin:
Species: Rat, male and female
NOAEL: $50 \mathrm{mg} / \mathrm{kg}$
Application Route: Ingestion
Exposure time: 14 Weeks
Number of exposures: 7 d
Method: Subchronic toxicity
Species: Rat, male and female
NOEL: $10 \mathrm{mg} / \mathrm{kg}$
Application Route: Skin contact
Exposure time: 13 Weeks
Number of exposures: 5 d
Method: Subchronic toxicity
Species: Mouse, male
NOAEL: $100 \mathrm{mg} / \mathrm{kg}$
Application Route: Skin contact
Exposure time: 13 Weeks
Number of exposures: 3 d
Method: Subchronic toxicity

Silicon, amorphous:
Species: Rat, male and female
NOAEL: 7950-8980 mg/kg
Application Route: Ingestion
Exposure time: $4,320 \mathrm{~h}$
Number of exposures: 7 d
Method: Subchronic toxicity
Species: Rat, male and female
: 4000-4500 mg/m3
Application Route: Ingestion
Test atmosphere: dust/mist
Exposure time: 13 Weeks
Number of exposures: 7 d
Method: OECD Test Guideline 413

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Repeated dose toxicity - : No data available
Assessment

## Aspiration toxicity

No data available

## Experience with human exposure

| General Information: | No data available |
| :--- | :--- |
| Inhalation: | No data available |
| Skin contact: | No data available |
| Eye contact: | No data available |
| Ingestion: | No data available |

Toxicology, Metabolism, Distribution
No data available

Neurological effects
No data available

Further information
Product:
Remarks: No data available

## SECTION 12. ECOLOGICAL INFORMATION

## Ecotoxicity

## Components:

Bisphenol A epoxy resin:
Toxicity to fish
: LC50 (Oncorhynchus mykiss (rainbow trout)): $1.5 \mathrm{mg} / \mathrm{l}$ Exposure time: 96 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 203
Silicon, amorphous:
Toxicity to fish : LL50 (Brachydanio rerio (zebrafish)): > 10,000 mg/l Exposure time: 96 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 202

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## Components:

Bisphenol A epoxy resin:
Toxicity to daphnia and other aquatic invertebrates
: EC50 (Daphnia magna (Water flea)): $2.7 \mathrm{mg} / \mathrm{l}$
Exposure time: 48 h
Test Type: static test
Test substance: Fresh water
Silicon, amorphous:
Toxicity to daphnia and other aquatic invertebrates
: EL50 (Daphnia magna (Water flea)): >= 1,000 mg/l
Exposure time: 24 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 202

## Components:

Bisphenol A epoxy resin:
Toxicity to algae
: EC50 (Selenastrum capricornutum (green algae)): $9.4 \mathrm{mg} / \mathrm{l}$ Exposure time: 72 h
Test Type: static test
Test substance: Fresh water
Method: EPA-660/3-75-009
Silicon, amorphous:
Toxicity to algae
: EL50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 10,000 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 201
M-Factor (Acute aquatic : No data available toxicity)

Toxicity to fish (Chronic : No data available toxicity)

## Components:

Bisphenol A epoxy resin:
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)
: NOEC (Daphnia magna (Water flea)): $0.3 \mathrm{mg} / \mathrm{l}$ Exposure time: 21 d Test Type: semi-static test Test substance: Fresh water Method: OECD Test Guideline 211

M-Factor (Chronic aquatic : No data available toxicity)

## Components:

Bisphenol A epoxy resin:
Toxicity to microorganisms : IC50 (activated sludge): > $100 \mathrm{mg} / \mathrm{l}$
Exposure time: 3 h
Test Type: static test

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|  | Test substance: Fresh water |
| :---: | :---: |
| Toxicity to soil dwelling organisms | No data available |
| Plant toxicity | No data available |
| Sediment toxicity | No data available |
| Toxicity to terrestrial organisms | No data available |
| Ecotoxicology Assessment Acute aquatic toxicity | No data available |
| Chronic aquatic toxicity | No data available |
| Toxicity Data on Soil | No data available |
| Other organisms relevant to the environment | No data available |
| Persistence and degradability |  |
| Components: |  |
| Bisphenol A epoxy resin: Biodegradability | : Inoculum: Sewage (STP effluent) <br> Concentration: $20 \mathrm{mg} / \mathrm{l}$ <br> Result: Not readily biodegradable. <br> Biodegradation: 5 \% <br> Exposure time: 28 d <br> Method: OECD Test Guideline 301F |
| Biochemical Oxygen <br> Demand (BOD) | No data available |
| Chemical Oxygen Demand (COD) | No data available |
| BOD/COD | : No data available |
| ThOD | No data available |
| BOD/ThOD | : No data available |
| Dissolved organic carbon (DOC) | : No data available |
| Physico-chemical removability | : No data available |
| Components: |  |
| Bisphenol A epoxy resin: Stability in water | : Degradation half life(DT50): $4.83 \mathrm{~d}\left(25^{\circ} \mathrm{C}\right) \mathrm{pH}: 4$ |


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| Photodegradation | $:$ No data available |
| :--- | :--- |
| Impact on Sewage | $:$ No data available |
| Treatment |  |

Bioaccumulative potential

## Components:

Bisphenol A epoxy resin:
Bioaccumulation
: Bioconcentration factor (BCF): 31
Remarks: Does not bioaccumulate.

## Components:

Bisphenol A epoxy resin:
Partition coefficient: noctanol/water
: log Pow: $3.242\left(25^{\circ} \mathrm{C}\right)$
pH: 7.1
Method: OECD Test Guideline 117

Mobility in soil
Mobility : No data available

Components:
Bisphenol A epoxy resin:
Distribution among : Koc: 445
environmental compartments
Stability in soil : No data available

Other adverse effects
Environmental fate and : No data available pathways

Results of PBT and vPvB : No data available assessment

Endocrine disrupting : No data available potential

Adsorbed organic bound : No data available halogens (AOX)

Method: OECD Test Guideline 111
Remarks: Fresh water
Degradation half life(DT50): $7.1 \mathrm{~d}\left(25{ }^{\circ} \mathrm{C}\right) \mathrm{pH}: 9$
Method: OECD Test Guideline 111
Remarks: Fresh water
Degradation half life(DT50): $3.58 \mathrm{~d}\left(25^{\circ} \mathrm{C}\right) \mathrm{pH}: 7$
Method: OECD Test Guideline 111
Remarks: Fresh water
: No data available
: No data available

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| :---: | :---: |
| Ozone-Depletion Potential | : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances <br> 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 + $B)$. |
| Additional ecological information - Product | : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects. |
| Global warming potential (GWP) | : No data available |

## SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues
Contaminated packaging
: The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
: Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

## SECTION 14. TRANSPORT INFORMATION

## International Regulations

IATA
UN/ID No. : UN 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s. (BISPHENOL A EPOXY RESIN)
Class : 9
Packing group : III
Labels : Miscellaneous
Packing instruction (cargo : 964
aircraft)
Packing instruction : 964
(passenger aircraft)

IMDG
UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(BISPHENOL A EPOXY RESIN)


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

Not applicable for product as supplied.

## National Regulations

| DOT Classification |  |
| :--- | :--- |
| UN/ID/NA number | $:$ UN 3082 |
| Proper shipping name | $:$ ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, |
|  | N.O.S. |
|  | (BISPHENOL A EPOXY RESIN) |
| Class | $: 9$ |
| Packing group | $:$ III |
| Labels | $:$ CLASS 9 |
| ERG Code | $: 171$ |
| Marine pollutant | $: y e s(B I S P H E N O L ~ A ~ E P O X Y ~ R E S I N) ~$ |

## SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act
SARA 311/312 Hazards : No SARA Hazards
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.

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

## California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.
The components of this product are reported in the following inventories:

CH INV

DSL
AICS
NZIoC
ENCS
KECI
PICCS
IECSC
TCSI
: The formulation contains substances listed on the Swiss Inventory, On the inventory, or in compliance with the inventory
: All components of this product are on the Canadian DSL
: On the inventory, or in compliance with the inventory
: On the inventory, or in compliance with the inventory
: On the inventory, or in compliance with the inventory
: On the inventory, or in compliance with the inventory
: On the inventory, or in compliance with the inventory
: On the inventory, or in compliance with the inventory
: On the inventory, or in compliance with the inventory

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TSCA : On the inventory, or in compliance with the inventory

## Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZloC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

TSCA - 5(a) Significant New Use Rule List of Chemicals No substances are subject to a Significant New Use Rule.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)
No substances are subject to TSCA 12(b) export notification requirements.

## SECTION 16. OTHER INFORMATION

## Further information

NFPA:


Special hazard.

HMIS® IV:


HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Revision Date : 01/12/2017

The information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Enriching lives through innovation

## EPIBOND® 1217 A US

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Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

The trademarks above are the property of Huntsman Corporation or an affiliate thereof.

NO PERSON OR ORGANIZATION EXCEPT A DULY AUTHORIZED HUNTSMAN EMPLOYEE IS AUTHORIZED TO PROVIDE OR MAKE AVAILABLE DATA SHEETS FOR HUNTSMAN PRODUCTS. DATA SHEETS FROM UNAUTHORIZED SOURCES MAY CONTAIN INFORMATION THAT IS NO LONGER CURRENT OR ACCURATE.

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## SECTION 1. IDENTIFICATION

Product name
EPIBOND® 1217 B US

## Manufacturer or supplier's details

Company name of supplier : Huntsman Advanced Materials Americas LLC
Address
: P.O. Box 4980
The Woodlands, TX 77387
United States of America (USA)
Telephone : Non-Emergency: (800) 257-5547
E-mail address of person : MSDS@huntsman.com
responsible for the SDS
Emergency telephone number : Chemtrec: (800) 424-9300 or (703) 527-3887

Recommended use of the chemical and restrictions on use
Recommended use
: Hardener

## SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200
Skin corrosion
Serious eye damage
Skin sensitisation : Category 1

GHS label elements
Hazard pictograms

Signal word
Hazard statements

Precautionary statements
:

: Category 1C
: Category 1

Danger
: H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction.

## : Prevention:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

## Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P363 Wash contaminated clothing before reuse.

## Storage:

P405 Store locked up.
Disposal:
P501 Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.

Other hazards
None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

| Chemical name | CAS-No. | Concentration (\% w/w) |
| :--- | :--- | :---: |
| Silicon, amorphous | $112945-52-5$ | $5-10$ |
| $2,4,6$-tris(dimethylaminomethyl)phenol | $90-72-2$ | $5-10$ |
| bis[(dimethylamino)methyl]phenol | $71074-89-0$ | $1-3$ |

The specific chemical identity and/or exact percentage (concentration) of composition may be withheld as a trade secret.

## SECTION 4. FIRST AID MEASURES

| General advice | No hazards which require special first aid measures. <br> Move out of dangerous area. <br> Consult a physician. <br> Show this safety data sheet to the doctor in attendance. <br> Do not leave the victim unattended. |
| :---: | :---: |
| If inhaled | Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion. <br> If symptoms persist, call a physician. |
|  | If unconscious, place in recovery position and seek medical advice. <br> If symptoms persist, call a physician. |
| In case of skin contact | Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. |


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| In case of eye contact | Flush eyes with water as a precaution. <br> Remove contact lenses. <br> Protect unharmed eye. <br> Keep eye wide open while rinsing. <br> Small amounts splashed into eyes can cause irreversible tissue damage and blindness. <br> In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. <br> Continue rinsing eyes during transport to hospital. <br> Remove contact lenses. <br> Protect unharmed eye. <br> Keep eye wide open while rinsing. <br> If eye irritation persists, consult a specialist. |
| :---: | :---: |
| If swallowed | Clean mouth with water and drink afterwards plenty of water. <br> Do not give milk or alcoholic beverages. <br> Never give anything by mouth to an unconscious person. <br> Keep respiratory tract clear. <br> Do NOT induce vomiting. <br> Do not give milk or alcoholic beverages. <br> Never give anything by mouth to an unconscious person. <br> If symptoms persist, call a physician. <br> Take victim immediately to hospital. |
| Most important symptoms and effects, both acute and delayed | None known. |

## SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local

If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.
Flush eyes with water as a precaution.
Remove contact lenses
Keep eye wide open while rinsing.
Small amounts splashed into eyes can cause irreversible In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital
Protect unharmed
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
Clean mouth with water and drink afterwards plenty of water.
Do not give milk or alcoholic beverages.

Keep respiratory tract clear.
Do
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.
: None known.
and effects, both acute and delayed
circumstances and the surrounding environment.

No data is available on the product itself.
Unsuitable extinguishing : No data is available on the product itself. media

High volume water jet
Specific hazards during : No data is available on the product itself.
firefighting
$\begin{array}{ll} & \begin{array}{l}\text { Do not allow run-off from fire fighting to enter drains or water } \\ \text { courses. }\end{array} \\ \begin{array}{l}\text { Hazardous combustion } \\ \text { products }\end{array} & : \text { No hazardous combustion products are known }\end{array}$
$\begin{array}{ll} & \begin{array}{l}\text { Do not allow run-off from fire fighting to enter d } \\ \text { courses. }\end{array} \\ \begin{array}{l}\text { Hazardous combustion } \\ \text { products }\end{array} & \text { : No hazardous combustion products are known }\end{array}$
$\begin{array}{ll} & \begin{array}{l}\text { Do not allow run-off from fire fighting to enter d } \\ \text { courses. }\end{array} \\ \begin{array}{l}\text { Hazardous combustion } \\ \text { products }\end{array} & : \text { No hazardous combustion products are known }\end{array}$
$\begin{array}{ll} & \begin{array}{l}\text { Do not allow run-off from fire fighting to enter d } \\ \text { courses. }\end{array} \\ \begin{array}{l}\text { Hazardous combustion } \\ \text { products }\end{array} & \text { : No hazardous combustion products are known }\end{array}$

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| :--- | :--- | :--- | :--- |

Specific extinguishing methods

Further information

Special protective equipment for firefighters

No data is available on the product itself.
: No data is available on the product itself.

No data is available on the product itself.
: Standard procedure for chemical fires.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

In the event of fire, wear self-contained breathing apparatus.

Wear self-contained breathing apparatus for firefighting if necessary.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, : Use personal protective equipment. protective equipment and emergency procedures

Environmental precautions : No special environmental precautions required.
Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up
: Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

## SECTION 7. HANDLING AND STORAGE

Advice on protection against : Normal measures for preventive fire protection. fire and explosion

Normal measures for preventive fire protection.
Advice on safe handling
: For personal protection see section 8.
No special handling advice required.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.

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|  | For personal protection see section 8. <br> Smoking, eating and drinking should be prohibited in the <br> application area. |
| :--- | :--- |
|  | To avoid spills during handling keep bottle on a metal tray. <br> Dispose of rinse water in accordance with local and national <br> regulations. <br> Persons susceptible to skin sensitisation problems or asthma, <br> allergies, chronic or recurrent respiratory disease should not <br> be employed in any process in which this mixture is being <br> used. |
| Conditions for safe storage | : Keep container tightly closed in a dry and well-ventilated place. |$\quad$| Keep container tightly closed in a dry and well-ventilated place. |
| :--- |
| Electrical installations / working materials must comply with the |
| technological safety standards. |

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
| :---: | :---: | :---: | :---: | :---: |
| Contains no substances with occupational exposure limit values. |  |  |  |  |
| Silicon, amorphous | 112945-52-5 | TWA (Dust) | 20 Million particles per cubic foot (Silica) | OSHA Z-3 |
|  |  | TWA (Dust) | $\begin{aligned} & 80 \mathrm{mg} / \mathrm{m} 3 / \\ & \% \mathrm{SiO} 2 \\ & \text { (Silica) } \end{aligned}$ | OSHA Z-3 |

## Personal protective equipment

Respiratory protection

Hand protection

| Material | $:$ butyl-rubber |
| :--- | :--- |
| Break through time | $:>8 \mathrm{~h}$ |

Solvent-resistant gloves (butyl-rubber)
Nitrile rubber
10-480 min
: For prolonged or repeated contact use protective gloves.

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Eye protection
Skin and body protection

Hygiene measures

The suitability for a specific workplace should be discussed with the producers of the protective gloves.
: Safety glasses
Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.
: Protective suit Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
: General industrial hygiene practice.
When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance | paste |
| :---: | :---: |
| Colour | amber |
| Odour | strong |
| Odour Threshold | No data is available on the product itself. |
| pH | No data is available on the product itself. |
| Freezing point | No data is available on the product itself. |
| Melting point | No data is available on the product itself. |
| Boiling point | $>200{ }^{\circ} \mathrm{C}$ |
| Flash point | $>124^{\circ} \mathrm{C}$ <br> Method: Pensky-Martens closed cup, closed cup |
| Evaporation rate | No data is available on the product itself. |
| Flammability (solid, gas) | No data is available on the product itself. |
| Flammability (liquids) | No data is available on the product itself. |
| Upper explosion limit | No data is available on the product itself. |
| Lower explosion limit | No data is available on the product itself. |
| Vapour pressure | $<0.099975 \mathrm{hPa}\left(20^{\circ} \mathrm{C}\right)$ |
| Relative vapour density | No data is available on the product itself. |
| Relative density | 1.19 |

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| Density | $:$ No data is available on the product itself. |
| :--- | :--- |
| Solubility(ies) <br> Water solubility | $:$ practically insoluble $\left(20^{\circ} \mathrm{C}\right)$ |
| Solubility in other solvents | $:$ No data is available on the product itself. |
| Partition coefficient: n- <br> octanol/water <br> Auto-ignition temperature | $:$ No data is available on the product itself. |
| Decomposition temperature | $:>200{ }^{\circ} \mathrm{C}$ |
| Self-Accelerating <br> decomposition temperature <br> (SADT) | $:$ No data is available on the product itself. |
| Viscosity |  |
| Viscosity, dynamic | $: 90,000$ mPa.s $\left(25^{\circ} \mathrm{C}\right)$ |
| Explosive properties | $:$ No data is available on the product itself. |
| Oxidizing properties | No data is available on the product itself. |
| Particle size | : No data is available on the product itself. |

## SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable under recommended storage conditions. No decomposition if stored and applied as directed.
Chemical stability
Possibility of hazardous
No decomposition if stored and applied as directed. No decomposition if stored and applied as directed. reactions
: No hazards to be specially mentioned.
No decomposition if stored and applied as directed.
Conditions to avoid : No data available
No data available

## SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : No data is available on the product itself. exposure

Acute toxicity
Acute oral toxicity - Product : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

## Components:

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Silicon, amorphous:

| Acute inhalation toxicity | LC50 (Rat, male and female): > $58.8 \mathrm{mg} /$ Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 |
| :---: | :---: |
| Acute dermal toxicity Product | : Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method |
| Acute toxicity (other routes of administration) | No data available |
| Skin corrosion/irritation |  |
| Product: |  |

Remarks: The product is not considered as being a skin irritant.
Remarks: Extremely corrosive and destructive to tissue.

## Serious eye damage/eye irritation

Product:
Remarks: According to the classification criteria of the European Union, the product is not considered as being an eye irritant.

Remarks: May cause irreversible eye damage.

## Respiratory or skin sensitisation

Product:
Remarks: No data available
Remarks: Causes sensitisation.
Assessment: No data available

## Germ cell mutagenicity

## Components:

Silicon, amorphous:
Genotoxicity in vitro

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| :---: | :---: | :---: | :---: |
| Genotoxicity in vitro |  | : Concentration: 5000 ug/plate Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  | Concentration: 2500 ug/plate Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 |  |
|  |  |  |  |
|  |  |  |  |
|  |  | Result: negative |  |
|  |  | Metabolic ac | n: with and without metabolic activation |
|  |  | Method: OE | est Guideline 476 |
|  |  | Result: nega |  |

## Components:

Silicon, amorphous:
Genotoxicity in vivo
: Application Route: Inhalation
Dose: $50 \mathrm{mg} / \mathrm{m} 3$
Result: negative

## Carcinogenicity

Components:
Silicon, amorphous:
Species: Rat, (male and female)
Application Route: Oral
Exposure time: 103 weeks
Dose: 1800-3200 mg/kg
Frequency of Treatment: 7 daily
Method: OECD Test Guideline 453
Result: negative
Carcinogenicity - : No data available
Assessment

IARC

ACGIH

OSHA

NTP

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

No component of this product present at levels greater than or equal to $0.1 \%$ is identified as a carcinogen or potential carcinogen by ACGIH.

No component of this product present at levels greater than or equal to $0.1 \%$ is identified as a carcinogen or potential carcinogen by OSHA.

No component 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

## Components:

2,4,6-tris(dimethylaminomethyl)phenol:

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| :--- | :--- | :--- | :--- |
| Effects on fertility | Species: Rat, male and female |  |
|  | Application Route: Oral |  |
|  | Method: OECD Test Guideline 422 <br> Remarks: No significant adverse effects were reported |  |

## Components:

Silicon, amorphous:
Effects on foetal development

Reproductive toxicity - : No data available
Assessment

## STOT - single exposure

No data available

## STOT - repeated exposure

No data available

## Repeated dose toxicity

## Components:

Silicon, amorphous:
Species: Rat, male and female
NOAEL: 7950-8980 mg/kg
Application Route: Ingestion
Exposure time: 4,320 h
Number of exposures: 7 d
Method: Subchronic toxicity
Species: Rat, male and female
: 4000-4500 mg/m3
Application Route: Ingestion
Test atmosphere: dust/mist
Exposure time: 13 Weeks

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Number of exposures: 7 d
Method: OECD Test Guideline 413

2,4,6-tris(dimethylaminomethyl)phenol:
Species: Rat, male and female
NOEL: $15 \mathrm{mg} / \mathrm{kg}$
Application Route: Ingestion
Exposure time: 1,032 h
Number of exposures: 7 d
Method: Subacute toxicity

Repeated dose toxicity - : No data available Assessment

## Aspiration toxicity

No data available

Experience with human exposure
General Information: No data available

Inhalation: No data available

Skin contact: No data available

Eye contact: No data available

Ingestion: No data available

## Toxicology, Metabolism, Distribution

No data available

Neurological effects
No data available

Further information
Product:
Remarks: No data available
Remarks: No data available

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## SECTION 12. ECOLOGICAL INFORMATION

## Ecotoxicity

Components:
Silicon, amorphous:
Toxicity to fish : LL50 (Brachydanio rerio (zebrafish)): > 10,000 mg/l
Exposure time: 96 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 202
2,4,6-tris(dimethylaminomethyl)phenol:
Toxicity to fish
: LC50 (Cyprinus carpio (Carp)): $175 \mathrm{mg} / \mathrm{l}$
Exposure time: 96 h
Test Type: static test
Test substance: Fresh water

## Components:

Silicon, amorphous:
Toxicity to daphnia and other : EL50 (Daphnia magna (Water flea)): >=1,000 mg/l aquatic invertebrates Exposure time: 24 h

Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 202
2,4,6-tris(dimethylaminomethyl)phenol:
Toxicity to daphnia and other : LC50: $718 \mathrm{mg} / \mathrm{l}$ aquatic invertebrates Exposure time: 96 h

Test Type: static test
Test substance: Marine water

## Components:

Silicon, amorphous:
Toxicity to algae : EL50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 10,000 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 201
2,4,6-tris(dimethylaminomethyl)phenol:
Toxicity to algae
: ErC50 (Desmodesmus subspicatus (Scenedesmus
subspicatus)): $84 \mathrm{mg} / \mathrm{l}$
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 201
NOEC (Desmodesmus subspicatus (Scenedesmus
subspicatus)): $6.25 \mathrm{mg} / \mathrm{l}$
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water

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| :--- | :--- | :--- | :--- |

Method: OECD Test Guideline 201

| M-Factor (Acute aquatic <br> toxicity) | $:$ No data available |
| :--- | :--- |
| Toxicity to fish (Chronic <br> toxicity) | $:$ No data available |
| Toxicity to daphnia and other <br> aquatic invertebrates <br> (Chronic toxicity) | $:$ No data available |
| M-Factor (Chronic aquatic <br> toxicity) | $:$ No data available |
| Toxicity to microorganisms | $:$ No data available |
| Toxicity to soil dwelling <br> organisms | No data available |
| Plant toxicity | $:$ No data available |
| Sediment toxicity | No data available |
| Toxicity to terrestrial <br> organisms |  |
| Ecotoxicology Assessment <br> Acute aquatic toxicity | No data available |
| Components: | No data available |
| 2,4,6-tris(dimethylaminomethyl)phenol: |  |
| Chronic aquatic toxicity | : This product has no known ecotoxicological effects. |
| Toxicity Data on Soil | No data available |
| Other organisms relevant to <br> the environment | No data available |

## Persistence and degradability

Components:
2,4,6-tris(dimethylaminomethyl)phenol:
Biodegradability
: Inoculum: activated sludge Concentration: $2 \mathrm{mg} / \mathrm{I}$ Result: Not readily biodegradable. Biodegradation: 4 \% Exposure time: 28 d Method: OECD Test Guideline 301D

Biochemical Oxygen : No data available
Demand (BOD)

Chemical Oxygen Demand : No data available

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(COD)

| BOD/COD | $:$ No data available |
| :--- | :--- |
| ThOD | $:$ No data available |
| BOD/ThOD | No data available |
| Dissolved organic carbon <br> (DOC) | : No data available |
| Physico-chemical <br> removability | : No data available |
| Stability in water | : No data available |
| Photodegradation | : No data available |
| Impact on Sewage |  |
| Treatment |  |

## Bioaccumulative potential

Bioaccumulation : No data available

## Components:

2,4,6-tris(dimethylaminomethyl)phenol:
Partition coefficient: n- : log Pow: $0.219\left(21.5^{\circ} \mathrm{C}\right)$
octanol/water Method: OPPTS 830.7550

## Mobility in soil

| Mobility | : No data available |
| :--- | :--- |
| Distribution among <br> environmental compartments | : No data available |
| Stability in soil | : No data available |

## Other adverse effects

Environmental fate and : No data available pathways

Results of PBT and vPvB : No data available assessment

Endocrine disrupting : No data available potential

Adsorbed organic bound : No data available halogens (AOX)

## Hazardous to the ozone layer

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82

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| :--- | :--- | :--- |
|  | Protection of Stratospheric Ozone - CAA Section 602 Class I <br> Substances |  |
|  | Remarks: This product neither contains, nor was <br> manufactured with a Class I or Class II ODS as defined by the <br> U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + |  |
|  | B). |  |
| Additional ecological <br> information - Product | : There is no data available for this product. |  |

## SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues

Contaminated packaging
: Offer surplus and non-recyclable solutions to a licensed disposal company.

Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
: Empty remaining contents. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

## SECTION 14. TRANSPORT INFORMATION

## International Regulations

## IATA

UN/ID No. : UN 2735
Proper shipping name : Polyamines, liquid, corrosive, n.o.s.
(2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL)

Class : 8
Packing group : III
Labels : Corrosive
Packing instruction (cargo : 856
aircraft)
Packing instruction : 852
(passenger aircraft)

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| IMDG |  |
| :--- | :--- |
| UN number | $:$ UN 2735 |
| Proper shipping name | $:$ POLYAMINES, LIQUID, CORROSIVE, N.O.S. |
|  | $(2,4,6-$ TRIS(DIMETHYLAMINOMETHYL)PHENOL) |
| Class | $: 8$ |
| Packing group | $: 8$ |
| Labels | $:$ F-A, S-B |
| EmS Code | $:$ no |

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

## National Regulations

DOT Classification

| UN/ID/NA number | $:$ UN 2735 |
| :--- | :--- |
| Proper shipping name | $:$ POLYAMINES, LIQUID, CORROSIVE, N.O.S. |
|  | $: 8,4,6-$ TRIS(DIMETHYLAMINOMETHYL)PHENOL) |
| Class | $:$ III |
| Packing group | $:$ CORROSIVE |
| Labels | $: 153$ |
| ERG Code | $:$ no |
| Marine pollutant |  |

## SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard
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.

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

## California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.
The components of this product are reported in the following inventories:


DSL
AICS
: The formulation contains substances listed on the Swiss Inventory, On the inventory, or in compliance with the inventory
: All components of this product are on the Canadian DSL
: On the inventory, or in compliance with the inventory

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| :--- | :--- | :--- |
| NZIoC | $:$ Not in compliance with the inventory |  |
| ENCS | $:$ On the inventory, or in compliance with the inventory |  |
| KECI | $:$ Not in compliance with the inventory |  |
| PICCS | $:$ On the inventory, or in compliance with the inventory |  |
| IECSC | On the inventory, or in compliance with the inventory |  |
| TCSI | : On the inventory, or in compliance with the inventory |  |
| TSCA | $:$ On the inventory, or in compliance with the inventory |  |

## Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

TSCA - 5(a) Significant New Use Rule List of Chemicals
No substances are subject to a Significant New Use Rule.
US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)
No substances are subject to TSCA 12(b) export notification requirements.

## SECTION 16. OTHER INFORMATION

## Further information

## NFPA:



Special hazard.

HMIS® IV:


HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

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: 01/13/2017

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THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

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