ARALDITE® 2028-1 POLYOL

Version	Revision Date:	SDS Number:	Date of last issue: 02.10.2018
1.3	03.02.2022	400001013922	Date of first issue: 12.05.2015

Print Date 18.04.2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : ARALDITE® 2028-1 POLYOL

Unique Formula Identifier (UFI) : K2V0-J0Y5-2007-61EN

1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Mixture : Component of a Polyurethane System.

1.3 Details of the supplier of the safety data sheet

Company : Huntsman Advanced Materials (Europe)BVBA
Address : Everslaan 45
3078 Everberg
Belgium
Telephone : +41 61 299 20 41
Telefax : +41 61 299 20 40

E-mail address of person responsible for the SDS : Global_Product_EHS_AdMat@huntsman.com

1.4 Emergency telephone number

Emergency telephone number : Centres Antipoison et de Toxicovigilance:
ANGERS: 02 41 48 21 21
BORDEAUX: 05 56 96 40 80
LILLE: 0 825 812 822
LYON: 04 72 11 69 11
MARSEILLE 04 91 75 25 25
NANCY: 03 83 32 36 36
PARIS: 01 40 05 48 48
RENNES: 02 99 59 22 22
STRASBOURG: 03 88 37 37 37
TOULOUSE: 05 61 77 74 47
EUROPE: +32 35 75 1234
France ORFILA: +33(0)145425959
ASIA: +65 6336-6011
China: +86 20 39377888
+86 532 83889090
India: + 91 22 42 87 5333
Australia: 1800 786 152
New Zealand: 0800 767 437
USA: +1/800/424.9300

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Eye irritation, Category 2 — H319: Causes serious eye irritation.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

Precautionary statements :

Prevention:

P264 Wash skin thoroughly after handling.

P280 Wear eye protection/ face protection.

Response:

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

P337 + P313 If eye irritation persists: Get medical advice/ attention.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	2530-83-8 219-784-2 01-2119513212-58	Eye Dam. 1; H318 Aquatic Chronic 3; H412	>= 1 - < 2,5
propylidynetrimethanol	77-99-6 201-074-9 01-2119486799-10	Repr. 2; H361	>= 1 - < 3

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Treat symptomatically.
Get medical attention if symptoms occur.

Protection of first-aiders : First Aid responders should pay attention to self-protection and use the recommended protective clothing
If potential for exposure exists refer to Section 8 for specific personal protective equipment.
No action shall be taken involving any personal risk or without suitable training.

If inhaled : If inhaled, remove to fresh air.
Get medical attention if symptoms occur.

In case of skin contact : Wash with water and soap as a precaution.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Induce vomiting immediately and call a physician.
Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	Exercise caution when using a high volume water jet as it may scatter and spread fire

5.2 Special hazards arising from the substance or mixture

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

5.3 Advice for firefighters

Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	:	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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Use personal protective equipment. Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

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.

6.3 Methods and material for containment and cleaning up

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

6.4 Reference to other sections

For disposal considerations see section 13., See Section 1 for emergency contact information., For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	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.
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Keep in properly labelled containers.
Advice on common storage	:	For incompatible materials please refer to Section 10 of this SDS.
Further information on storage stability	:	Stable under normal conditions.
Recommended storage temperature	:	2 - 40 °C

7.3 Specific end use(s)

Specific use(s)	:	No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
.epsilon.-Caprolactone,	Workers	Inhalation	Long-term systemic effects	3,5 mg/m3

oligomeric reaction products with propylidynetrimethanol				
	Workers	Dermal	Long-term systemic effects	1,1 mg/kg
	Consumers	Inhalation	Long-term systemic effects	1 mg/m3
	Consumers	Dermal	Long-term systemic effects	0,6 mg/kg
	Consumers	Oral	Long-term systemic effects	0,6 mg/kg
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Workers	Dermal	Systemic effects, Long-term exposure	21 mg/kg bw/day
	Workers	Inhalation	Systemic effects, Long-term exposure	147 mg/m3
	Consumers	Oral	Systemic effects, Long-term exposure	12,5 mg/kg bw/day
	Consumers	Inhalation	Systemic effects, Long-term exposure	43,5 mg/kg bw/day
	Consumers	Dermal	Systemic effects, Long-term exposure	12,5 mg/kg bw/day
propylidynetrimethanol	Workers	Inhalation	Long-term systemic effects	3,3 mg/m3
	Workers	Dermal	Long-term systemic effects	0,94 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	0,58 mg/m3
	Consumers	Dermal	Long-term systemic effects	0,34 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	0,34 mg/kg bw/day

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
.epsilon.-Caprolactone, oligomeric reaction products with propylidynetrimethanol	Fresh water	0,15 mg/l
	Marine water	0,015 mg/l
	Freshwater - intermittent	1,5 mg/l
	Sewage treatment plant	670 mg/l
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Fresh water	1 mg/l
	Marine water	0,1 mg/l
	Freshwater - intermittent	1 mg/l
	Sewage treatment plant	10 mg/l
	Fresh water sediment	3,6 mg/kg
	Marine sediment	0,36 mg/kg
	Soil	0,14 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye protection	:	Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Hand protection		
Material	:	butyl-rubber
Break through time	:	> 8 h
Material	:	Nitrile rubber
Break through time	:	10 - 480 min
Material	:	Ethyl Vinyl Alcohol Laminate (EVAL)
Break through time	:	> 8 h
Remarks	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Respiratory protection	:	Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines Recommended Filter type: Combined particulates and organic vapour type
Filter type	:	Filter type A-P

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	liquid
Colour	:	colourless
Odour	:	slight
Odour Threshold	:	No data is available on the product itself.
pH	:	substance/mixture is non-soluble (in water)
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	> 100 °C

Method: closed cup

Flammability (solid, gas)	:	No data is available on the product itself.
Upper explosion limit / Upper flammability limit	:	No data is available on the product itself.
Lower explosion limit / Lower flammability limit	:	No data is available on the product itself.
Vapour pressure	:	No data is available on the product itself.
Relative vapour density	:	No data is available on the product itself.
Relative density	:	No data is available on the product itself.
Density	:	1,1 g/cm3 (25 °C)
Solubility(ies)		
Water solubility	:	insoluble (20 °C)
Solubility in other solvents	:	No data is available on the product itself.
Partition coefficient: n-octanol/water	:	No data is available on the product itself.
Auto-ignition temperature	:	No data is available on the product itself.
Decomposition temperature	:	No data is available on the product itself.
Viscosity		
Viscosity, dynamic	:	4 000 - 5 000 mPa.s (25 °C)

9.2 Other information

Explosive properties	:	No data is available on the product itself.
Oxidizing properties	:	No data is available on the product itself.
Burning rate	:	No data is available on the product itself.
Evaporation rate	:	No data is available on the product itself.
Molecular weight	:	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : No hazards to be specially mentioned.

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : None known.

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Components:

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Acute oral toxicity : LD50 (Rat, male and female): 8 025 mg/kg
Method: OECD Test Guideline 401
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat, male and female): > 5,3 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit, male): 4 250 mg/kg
Method: OECD Test Guideline 402

propylidynetrimethanol:

Acute oral toxicity : LD50 (Rat, male): ca. 14 700 mg/kg
Method: OECD Test Guideline 401
GLP: no
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : LC50 (Rat, male): > 850 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Directive 67/548/EEC, Annex V, B.2.
GLP: no
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 10 000 mg/kg
Method: OECD Test Guideline 402

GLP: no
Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation

Components:

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

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

propylidynetrimethanol:

Species	:	Rabbit
Exposure time	:	24 h
Assessment	:	No skin irritation
Method	:	Directive 67/548/EEC, Annex V, B.4.
Result	:	No skin irritation

Serious eye damage/eye irritation

Components:

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Species	:	Rabbit
Assessment	:	Severe eye irritation
Method	:	OECD Test Guideline 405
Result	:	Risk of serious damage to eyes.

propylidynetrimethanol:

Species	:	Rabbit
Assessment	:	No eye irritation
Result	:	No eye irritation
GLP	:	no

Respiratory or skin sensitisation

Components:

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Exposure routes	:	Skin
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitisation.

propylidynetrimethanol:

Test Type	:	Local lymph node assay (LLNA)
Exposure routes	:	Skin
Species	:	Mouse
Assessment	:	Did not cause sensitisation on laboratory animals.
Method	:	OECD Test Guideline 429
Result	:	Did not cause sensitisation on laboratory animals.

GLP : yes

Germ cell mutagenicity

Components:

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Genotoxicity in vitro : Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: positive

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

Genotoxicity in vivo : Application Route: Intraperitoneal injection
Method: OECD Test Guideline 474
Result: positive

Application Route: Intraperitoneal injection
Dose: 1600 mg/kg
Result: negative

Application Route: Oral
Result: negative

propylidynetrimethanol:

Genotoxicity in vitro : Test Type: reverse mutation assay
Test system: Salmonella tryphimurium and E. coli
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes

Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes

Carcinogenicity

Components:

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Species : Mouse, male

Application Route	:	Dermal
Exposure time	:	482 days
Dose	:	5 mg/kg
Frequency of Treatment	:	3 daily
Result	:	negative

Reproductive toxicity

Components:

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Effects on fertility : Species: Rat, male and female
Application Route: Oral
Method: OECD Test Guideline 415
Result: No effects on fertility and early embryonic development were detected.

Effects on foetal development : Species: Rabbit, female
Application Route: Oral
General Toxicity Maternal: NOAEL: 200 mg/kg body weight
Method: OECD Test Guideline 414
Result: No teratogenic effects

propylidynetrimethanol:

Effects on fertility : Test Type: Reproduction / Developmental Toxicity Screening Test
Species: Rat, male and female
Application Route: Oral
Dose: 0/250/500/1000 mg/kg bw/day
Frequency of Treatment: 7 days/week
General Toxicity - Parent: NOAEL: > 1 000 mg/kg body weight
General Toxicity F1: NOAEL: > 1 000 mg/kg body weight
Method: OECD Test Guideline 421
Result: negative
GLP: yes

Species: Rat, male and female
Application Route: Oral
Dose: 0/740/2200/6600 ppm
Frequency of Treatment: 7 days/week
General Toxicity - Parent: NOAEL: 2 200 ppm
General Toxicity F1: NOAEL: 2 200 ppm
General Toxicity F2: NOAEL: 740 parts per million
Method: OECD Test Guideline 443
GLP: yes

Effects on foetal development : Test Type: Pre-natal
Species: Rabbit, female
Application Route: Oral
Duration of Single Treatment: 24 d
Frequency of Treatment: 7 days/week
General Toxicity Maternal: NOAEL: >= 450 mg/kg body weight
Developmental Toxicity: NOAEL: 450 mg/kg body weight
Method: OECD Test Guideline 414
GLP: yes

Test Type: Pre-natal
Species: Rat, female
Application Route: Oral
Dose: 0 / 100 / 300/ 1000 mg/kg bw/
Duration of Single Treatment: 15 d
Frequency of Treatment: 7 days/week
General Toxicity Maternal: NOAEL: 100 mg/kg body weight
Developmental Toxicity: NOEL: 100 mg/kg body weight
Method: OECD Test Guideline 414
GLP: yes

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Repeated dose toxicity

Components:

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Species	:	Rat, male and female
NOEC	:	> 1000 mg/m3
Application Route	:	Inhalation
Test atmosphere	:	dust/mist
Exposure time	:	672 h
Number of exposures	:	5 d
Method	:	OECD Test Guideline 412

Species	:	Rat, male and female
NOAEL	:	1000 mg/kg/d
Application Route	:	Ingestion
Exposure time	:	2 160 h
Number of exposures	:	7 d
Method	:	Subchronic toxicity

propylidynetrimethanol:

Species	:	Rat, male and female
NOEC	:	67 mg/kg
Application Route	:	oral (feed)
Exposure time	:	90 d
Number of exposures	:	7 days/week
Dose	:	20, 67, 200, 667 mg/kg bw/d
Method	:	Subchronic toxicity

Aspiration toxicity

No data available

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

Experience with human exposure

No data available

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

Further information

No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 55 mg/l
Exposure time: 96 h
Test Type: semi-static test
Test substance: Fresh water
Method: Directive 67/548/EEC, Annex V, C.1.

Toxicity to daphnia and other aquatic invertebrates : LC50 : 324 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: Fresh water

Toxicity to algae/aquatic plants : EC50 : 119 mg/l
Exposure time: 168 h
Test Type: static test
Test substance: Fresh water

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: >= 100 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test Type: semi-static test
Test substance: Fresh water
Method: OECD Test Guideline 211

Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

propylidynetrimethanol:

Toxicity to fish : LC50 (Fish): > 1 000 mg/l
Exposure time: 96 h
Test Type: static test

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 13 000 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: Fresh water
Method: ASTM Method, other
GLP: no

Toxicity to algae/aquatic plants : EbC50 (Selenastrum capricornutum (green algae)): > 1 000 mg/l
Exposure time: 72 h
Test substance: Fresh water
Method: OECD Test Guideline 201
GLP: no

Toxicity to microorganisms : EC50 : > 1 000 mg/l
Exposure time: 3 h
Test substance: Fresh water
Method: Directive 67/548/EEC, Annex V, C.11

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: > 1 000 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test Type: static test
Test substance: Fresh water
GLP: no

12.2 Persistence and degradability

Components:

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Biodegradability : Inoculum: activated sludge
Result: Not readily biodegradable.
Biodegradation: 37 %
Exposure time: 28 d
Method: Directive 67/548/EEC Annex V, C.4.A.

Stability in water : Degradation half life (DT50): 6,5 hrs (24,5 °C)
pH: 7
Method: OECD Test Guideline 111
Remarks: Fresh water

Degradation half life (DT50): 0,15 hrs (24,5 °C)
pH: 5
Method: OECD Test Guideline 111
Remarks: Fresh water

Degradation half life (DT50): 0,13 hrs (24,5 °C)
pH: 9
Method: OECD Test Guideline 111
Remarks: Fresh water

propylidynetrimethanol:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge
Concentration: 100 mg/l
Result: Inherently biodegradable.
Biodegradation: 100 %
Related to: Dissolved organic carbon (DOC)
Exposure time: 28 d
Method: OECD Test Guideline 302B
GLP: yes

Inoculum: activated sludge, non-adapted
Concentration: 19 mg/l
Result: Not readily biodegradable.
Biodegradation: 6 %
Related to: Dissolved organic carbon (DOC)
Exposure time: 28 d
Method: OECD Test Guideline 301E
GLP: yes

12.3 Bioaccumulative potential

Components:

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane:

Partition coefficient: n-octanol/water : log Pow: -2,6 (25 °C)

propylidynetrimethanol:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Exposure time: 42 d
Bioconcentration factor (BCF): < 17
Test substance: Marine water
Method: flow-through test
Remarks: Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water : log Pow: -0,47 (26 °C)

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher

12.7 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Dispose of contents and container in accordance with all local, regional, national and international regulations.
Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.

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

SECTION 14: Transport information

14.1 UN number or ID number

Not regulated as dangerous goods

14.2 UN proper shipping name

Not regulated as dangerous goods

14.3 Transport hazard class(es)

Not regulated as dangerous goods

14.4 Packing group

Not regulated as dangerous goods

14.5 Environmental hazards

Not regulated as dangerous goods

14.6 Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
Not applicable

Occupational Illnesses (R-461-3, France) : Not applicable

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

DSL : This product contains one or several components listed in the Canadian NDSL.

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

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

ENCS : Not in compliance with the inventory

KECI : On the inventory, or 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 : All substances listed as active on the TSCA inventory

Inventories

AICS (Australia), AIIC (Australia), DSL (Canada), IECSC (China), ENCS (Japan), KECI (Korea), NZIOC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (United States of America (USA))

15.2 Chemical safety assessment

Chemical Safety Assessments for all substances in this product are either Complete or Not applicable.

SECTION 16: Other information

Full text of H-Statements

H318	:	Causes serious eye damage.
H361	:	Suspected of damaging fertility or the unborn child.
H412	:	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Aquatic Chronic	:	Chronic aquatic toxicity
Eye Dam.	:	Serious eye damage
Repr.	:	Reproductive toxicity

Further information

Classification of the mixture:		**Classification procedure:**
Eye Irrit. 2	H319	Calculation method

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.

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.