

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

HUNTSMAN

Enriching lives through innovation

ARALDITE® 2021-1 B

Version	Revision Date:	SDS Number:	Date of last issue: 09.10.2023
1.5	28.10.2024	400000009925	Date of first issue: 17.03.2020

Print Date 10.02.2025

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

1.1 Product identifier

Trade name : ARALDITE® 2021-1 B

Unique Formula Identifier (UFI) : F3A6-500T-400N-P6TP

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

Use of the Substance/Mixture : Adhesives and/or sealants

Recommended restrictions on use : For industrial use only.

1.3 Details of the supplier of the safety data sheet

Company : Huntsman Advanced Materials (Europe) BV
Address : Grippenlaan 18
3300 Tienen
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

Emergency telephone : Berlin: 0049 30 19 24 0 & 0049 30 30 68 6 7 11
Bonn: 0049 228 19 27 0 & 0049 228 28 7 3 32 11
Erfurt: 0049 361 73 07 30
Freiburg: 0049 761 16 24 0
Göttingen: 0049 51 19 24 0 & 0049 551 38 31 80
Homburg: 0049 6841 19 24 0
Mainz: 0049 6131 19 24 0 & 0049 6131 23 24 66
München: 0049 89 19 24 0
Nürnberg: 0049 911 39 8 2 45 1
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

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 2	H225: Highly flammable liquid and vapor.
Skin irritation, Category 2	H315: Causes skin irritation.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.

2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal Word : Danger

Hazard Statements	H225	Highly flammable liquid and vapor.
	H315	Causes skin irritation.
	H317	May cause an allergic skin reaction.
	H335	May cause respiratory irritation.

Precautionary Statements	Prevention:	
	P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	P233	Keep container tightly closed.
	P261	Avoid breathing mist or vapors.
	P264	Wash skin thoroughly after handling.
	P280	Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response:

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Hazardous ingredients which must be listed on the label:

methyl methacrylate

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.

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ARALDITE® 2021-1 B

Version 1.5 Revision Date: 28.10.2024 SDS Number: 400000009925 Date of last issue: 09.10.2023
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Print Date 10.02.2025

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 ingredients

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
methyl methacrylate	80-62-6 201-297-1 607-035-00-6 01-2119452498-28	Flam. Liq. 2; H225 Skin Irrit. 2; H315 Skin Sens. 1; H317 STOT SE 3; H335 (Respiratory system)	>= 70 - < 90
3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine	34562-31-7 252-091-3 01-2120769712-47	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 4; H413	>= 2,5 - < 10
2,6-di-tert-butyl-p-cresol	128-37-0 204-881-4 01-2119555270-46	Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	>= 0,1 - < 0,25

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.
Show this material 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.
Avoid inhalation, ingestion and contact with skin and eyes.

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No action shall be taken involving any personal risk or without suitable training.
It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

If inhaled	:	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
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	:	Flush eyes with water as a precaution. Remove contact lenses. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	:	Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Risks	:	Causes skin irritation. May cause an allergic skin reaction. May cause respiratory irritation.
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4.3 Indication of any immediate medical attention and special treatment needed

Treatment	:	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO ₂) 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	:	Carbon oxides

5.3 Advice for firefighters

Special protective equipment	:	Wear self-contained breathing apparatus for firefighting if
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1.5	28.10.2024	400000009925	Date of first issue: 17.03.2020

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for fire-fighters

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.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.
Remove all sources of ignition.
Evacuate personnel to safe areas.
Refer to protective measures listed in sections 7 and 8.
Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

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 : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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 : Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons.
Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.
Do not breathe vapors/dust.

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according to Regulation (EC) No. 1907/2006, as amended

HUNTSMAN

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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.
Take precautionary measures against static discharges.
Open drum carefully as content may be under pressure.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

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 : No smoking. 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. Observe label precautions. Keep in properly labeled containers.

Advice on common storage : For incompatible materials please refer to Section 10 of this SDS.

Storage class (TRGS 510) : 3

Recommended storage temperature : 2 - 8 °C

Further information on storage stability : Stable under normal conditions.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
methyl methacrylate	80-62-6	TWA	50 ppm	2009/161/EU
Further information: Indicative				

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

HUNTSMAN

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ARALDITE® 2021-1 B

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Revision Date:
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SDS Number:
400000009925

Date of last issue: 09.10.2023
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Print Date 10.02.2025

		STEL	100 ppm	2009/161/EU
	Further information: Indicative			
		AGW	50 ppm 210 mg/m3	DE TRGS 900
	Peak-limit category: 2;(I)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		MAK	50 ppm 210 mg/m3	DE DFG MAK
	Peak-limit category: 2; I			
	Further information: Danger of sensitization of the skin, Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			
2,6-di-tert-butyl-p-cresol	128-37-0	AGW (Vapour and aerosols, inhalable fraction)	10 mg/m3	DE TRGS 900
	Peak-limit category: 4;(II)			
	Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		MAK (inhalable fraction)	10 mg/m3	DE DFG MAK
	Peak-limit category: 4; II			
	Further information: Substances that cause cancer in humans or animals or that are considered to be carcinogenic for humans and for which a MAK value can be derived., Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			

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

Substance name	End Use	Exposure routes	Potential health effects	Value
2,6-di-tert-butyl-p-cresol	Workers	Inhalation	Long-term systemic effects	3,5 mg/m3
	Workers	Dermal	Long-term systemic effects	0,5 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	0,86 mg/m3
	Consumers	Dermal	Long-term systemic effects	0,25 mg/kg bw/day
	Consumers	Oral	Long-term systemic effects	0,25 mg/kg bw/day

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

Substance name	Environmental Compartment	Value
2,6-di-tert-butyl-p-cresol	Fresh water	0,199 µg/l
	Remarks:Assessment Factors	
	Sea water	0,02 µg/l
	Remarks:Assessment Factors	
	Sewage treatment plant	0,17 mg/l
	Remarks:Assessment Factors	
	Fresh water sediment	0,0996 mg/kg dry weight (d.w.)
	Remarks:Equilibrium method	
	Sea sediment	0,00996 mg/kg

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Print Date 10.02.2025

		dry weight (d.w.)
	Remarks:Equilibrium method	
	Soil	0,04769 mg/kg dry weight (d.w.)
	Remarks:Equilibrium method	
	Oral	8,33 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye/face protection : Eye wash bottle with pure water
Tightly fitting safety goggles

Hand protection

Material : 4H(R) gloves
Break through time : > 480 min
Glove thickness : 0,08 mm

Material : butyl-rubber
Break through time : > 60 min
Glove thickness : 0,6 mm

Material : Nitrile rubber
Break through time : > 30 min
Glove thickness : 0,7 mm

Remarks : Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

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
Equipment should conform to EN 14387

Filter type : Combined particulates and organic vapor type (A-P)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : paste

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Color	: light yellow
Odor	: like acrylic
Odor Threshold	: No data is available on the product itself.
Melting point/freezing point	: No data is available on the product itself.
Boiling point	: > 100 °C
Flammability (solid, gas)	: No data is available on the product itself.
Lower explosion limit / Lower flammability limit	: No data is available on the product itself.
Upper explosion limit / Upper flammability limit	: No data is available on the product itself.
Flash point	: 10 °C Method: closed cup
Autoignition temperature	: No data is available on the product itself.
Decomposition temperature	: No data is available on the product itself.
pH	: substance/mixture is non-soluble (in water)
Viscosity	
Viscosity, dynamic	: 15 000 - 20 000 mPa.s (25 °C) thixotropic
Solubility(ies)	
Water solubility	: insoluble
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.
Vapor pressure	: No data is available on the product itself.
Density	: 0,95 g/cm ³ (20 °C)
Relative density	: 0,95 (20 °C)
Relative vapor density	: No data is available on the product itself.
Particle characteristics	: No data is available on the product itself.

SAFETY DATA SHEET

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Print Date 10.02.2025

9.2 Other information

No data is available on the product itself.

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 : Vapors may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Strong acids
Strong bases
Strong oxidizing agents

None known.

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

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

Acute toxicity

Not classified due to lack of data.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2 000 mg/kg
Method: Calculation method

Components:

methyl methacrylate:

Acute oral toxicity : LD50 (Rat): 7 900 - 9 400 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): 29,8 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: Directive 67/548/EEC, Annex V, B.2.

Acute dermal toxicity : LD50 (Rabbit, male): > 5 000 mg/kg
Method: OECD Test Guideline 402

SAFETY DATA SHEET

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ARALDITE® 2021-1 B

Version	Revision Date:	SDS Number:	Date of last issue:
1.5	28.10.2024	400000009925	09.10.2023
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Print Date 10.02.2025

3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine:

Acute oral toxicity : LD50 (Rat, male and female): > 500 mg/kg
GLP: yes
Assessment: The component/mixture is moderately toxic after single ingestion.

Acute dermal toxicity : LD50 (Rabbit, male and female): > 1 000 mg/kg
GLP: yes
Assessment: The substance or mixture has no acute dermal toxicity

2,6-di-tert-butyl-p-cresol:

Acute oral toxicity : LD50 (Rat, male and female): > 6 000 mg/kg
Method: OECD Test Guideline 401
Assessment: The substance or mixture has no acute oral toxicity

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

Skin corrosion/irritation

Causes skin irritation.

Components:

methyl methacrylate:

Species : Rabbit
Method : OPPTS 870.2500
Result : Skin irritation

3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine:

Species : Rabbit
Exposure time : 4 h
Method : Other guidelines
Result : Skin irritation
GLP : yes

2,6-di-tert-butyl-p-cresol:

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

Serious eye damage/eye irritation

Not classified due to lack of data.

SAFETY DATA SHEET

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HUNTSMAN

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ARALDITE® 2021-1 B

Version	Revision Date:	SDS Number:	Date of last issue:
1.5	28.10.2024	400000009925	09.10.2023
			Date of first issue: 17.03.2020

Print Date 10.02.2025

Components:

3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	Mild eye irritation
GLP	:	yes

2,6-di-tert-butyl-p-cresol:

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

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified due to lack of data.

Components:

methyl methacrylate:

Exposure routes	:	Skin
Species	:	Mouse
Assessment	:	May cause sensitisation by skin contact.
Method	:	OECD Test Guideline 429
Result	:	May cause sensitisation by skin contact.

3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine:

Test Type	:	Local lymph node assay (LLNA)
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

2,6-di-tert-butyl-p-cresol:

Exposure routes	:	Skin
Species	:	Humans
Result	:	Does not cause skin sensitisation.

Germ cell mutagenicity

Not classified due to lack of data.

Components:

methyl methacrylate:

Genotoxicity in vitro	:	Test Type: Microbial mutagenesis assay (Ames test)
		Test system: Salmonella typhimurium
		Method: OECD Test Guideline 471

SAFETY DATA SHEET

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1.5	28.10.2024	400000009925	Date of first issue: 17.03.2020

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Result: negative

3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine:

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

2,6-di-tert-butyl-p-cresol:

Genotoxicity in vitro : Test Type: reverse mutation assay
Metabolic activation: with and without metabolic activation
Result: negative

Test Type: Chromosome aberration test in vitro
Metabolic activation: with and without metabolic activation
Result: negative

Genotoxicity in vivo : Application Route: Intraperitoneal injection
Dose: 75 mg/kg
Result: negative

Application Route: Oral
Exposure time: 9 Months
Dose: ca 750 mg/kg
Result: negative

Carcinogenicity

Not classified due to lack of data.

Components:

methyl methacrylate:

Species : Rat, male and female
Application Route : Oral
Exposure time : 2 Years
Dose : 6, 60, 2000 ppm
Frequency of Treatment : once daily
NOAEL : 90,3 mg/kg bw/day
Result : negative

2,6-di-tert-butyl-p-cresol:

Species : Rat, male and female
Application Route : Oral
Result : negative

Reproductive toxicity

Not classified due to lack of data.

Components:

methyl methacrylate:

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ARALDITE® 2021-1 B

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Effects on fetal development : Species: Rat
Application Route: Inhalation
Dose: 99, 304, 1178 ppm
Teratogenicity: NOAEC F1: 8 300 mg/m³
Embryo-fetal toxicity.: NOAEC F1: 8 300 mg/m³
Method: OECD Test Guideline 414
Result: No teratogenic effects

2,6-di-tert-butyl-p-cresol:

Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Application Route: Oral
Dose: 25/100/500 mg/kg bw/day
General Toxicity Parent: NOAEL: 100 mg/kg body weight
General Toxicity F1: NOAEL: 25 mg/kg body weight
Result: negative

Effects on fetal development : Test Type: Pre-natal
Species: Mouse, female
Application Route: Oral
Duration of Single Treatment: 7 d
General Toxicity Maternal: NOAEL: 240 mg/kg body weight
Developmental Toxicity: NOAEL: 800 mg/kg body weight
Target Organs: spleen, Kidney

STOT-single exposure

May cause respiratory irritation.

Components:

methyl methacrylate:

Exposure routes : Inhalation
Target Organs : Respiratory Tract
Assessment : May cause respiratory irritation.

STOT-repeated exposure

Not classified due to lack of data.

Repeated dose toxicity

Components:

methyl methacrylate:

Species : Rat, male and female
NOAEL : 124,1 mg/kg
Application Route : oral (drinking water)
Exposure time : 2 years
Number of exposures : daily
Dose : 6, 60, 2000 ppm

2,6-di-tert-butyl-p-cresol:

Species : Pig, male and female
NOAEL : >= 61 mg/kg
Application Route : oral (feed)

SAFETY DATA SHEET

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HUNTSMAN

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Version	Revision Date:	SDS Number:	Date of last issue:
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Print Date 10.02.2025

Exposure time : daily
Method : Chronic toxicity

Aspiration toxicity

Not classified due to lack of data.

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

Product:

Remarks : Solvents may degrease the skin.

SECTION 12: Ecological information

12.1 Toxicity

Components:

methyl methacrylate:

Toxicity to fish : LC50 : 191 mg/l
Exposure time: 96 h

LC50 (Oncorhynchus mykiss (rainbow trout)): > 79 mg/l
Exposure time: 96 h
Test Type: flow-through test
Method: Fish Early-life Stage Toxicity Test

Toxicity to daphnia and other : EC50 : 69 mg/l
aquatic invertebrates Exposure time: 48 h

Toxicity to algae/aquatic : EC50 : > 110 mg/l
plants Exposure time: 72 h

Toxicity to daphnia and other : NOEC: 37 mg/l
aquatic invertebrates Exposure time: 21 d
(Chronic toxicity) Species: Daphnia magna (Water flea)

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

HUNTSMAN

Enriching lives through innovation

ARALDITE® 2021-1 B

Version	Revision Date:	SDS Number:	Date of last issue:
1.5	28.10.2024	400000009925	09.10.2023
			Date of first issue: 17.03.2020

Print Date 10.02.2025

Test Type: flow-through test
Method: OECD Test Guideline 211

3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine:

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): 22 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 40 mg/l
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes

NOEC (Pseudokirchneriella subcapitata (green algae)): 16 mg/l
Exposure time: 72 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: yes

Ecotoxicology Assessment

Chronic aquatic toxicity : May cause long lasting harmful effects to aquatic life.

2,6-di-tert-butyl-p-cresol:

Toxicity to fish : LC50 (Fish): 0,199 mg/l
Exposure time: 96 h
Test substance: Fresh water
Method: QSAR

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0,48 mg/l
End point: Immobilization
Exposure time: 48 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 0,24 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 0,24 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

HUNTSMAN

Enriching lives through innovation

ARALDITE® 2021-1 B

Version	Revision Date:	SDS Number:	Date of last issue:
1.5	28.10.2024	400000009925	09.10.2023
			Date of first issue: 17.03.2020

Print Date 10.02.2025

Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 1

Toxicity to microorganisms : ErC50 (activated sludge): 1,7 mg/l
Exposure time: 24 h
Test Type: static test

Toxicity to fish (Chronic toxicity) : NOEC: 0,053 mg/l
Exposure time: 30 d
Species: Oryzias latipes (Orange-red killifish)
Test substance: Fresh water
Method: OECD Test Guideline 210

NOEC: >= 23,8 mg/l
Exposure time: 70 d
Species: Fish
Test substance: Fresh water

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC50: 0,096 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test substance: Fresh water
Method: OECD Test Guideline 211

NOEC: 0,069 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test substance: Fresh water
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 1

12.2 Persistence and degradability

Components:

methyI methacrylate:

Biodegradability : Result: Readily biodegradable.
Biodegradation: > 60 %
Exposure time: 28 d

3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 0,132 %
Exposure time: 28 d
Method: QSAR
GLP: no

2,6-di-tert-butyl-p-cresol:

Biodegradability : Result: Not biodegradable

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

HUNTSMAN

Enriching lives through innovation

ARALDITE® 2021-1 B

Version	Revision Date:	SDS Number:	Date of last issue: 09.10.2023
1.5	28.10.2024	400000009925	Date of first issue: 17.03.2020

Print Date 10.02.2025

12.3 Bioaccumulative potential

Components:

methyl methacrylate:

Bioaccumulation : Bioconcentration factor (BCF): 3

Partition coefficient: n-octanol/water : log Pow: 1,38

3,5-diethyl-1,2-dihydro-1-phenyl-2-propylpyridine:

Partition coefficient: n-octanol/water : log Pow: > 6,5 (25 °C)
pH: 5,7
Method: OECD Test Guideline 117
GLP: yes

2,6-di-tert-butyl-p-cresol:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Exposure time: 28 d
Bioconcentration factor (BCF): 330 - 1 800
Method: flow-through test

Partition coefficient: n-octanol/water : log Pow: 5,2

12.4 Mobility in soil

Components:

2,6-di-tert-butyl-p-cresol:

Distribution among environmental compartments : Koc: 8183

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

Product:

Additional ecological : An environmental hazard cannot be excluded in the event of

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

HUNTSMAN

Enriching lives through innovation

ARALDITE® 2021-1 B

Version	Revision Date:	SDS Number:	Date of last issue:
1.5	28.10.2024	400000009925	09.10.2023
			Date of first issue: 17.03.2020

Print Date 10.02.2025

information

unprofessional handling or disposal.
Harmful to aquatic life.

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. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

14.1 UN number or ID number

ADN	: UN 1133
ADR	: UN 1133
RID	: UN 1133
IMDG	: UN 1133
IATA	: UN 1133

14.2 UN proper shipping name

ADN	: ADHESIVES
ADR	: ADHESIVES
RID	: ADHESIVES
IMDG	: ADHESIVES
IATA	: Adhesives

14.3 Transport hazard class(es)

	Class	Subsidiary risks
ADN	: 3	
ADR	: 3	
RID	: 3	
IMDG	: 3	
IATA	: 3	

14.4 Packing group

ADN	
Packing group	: II

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

HUNTSMAN

Enriching lives through innovation

ARALDITE® 2021-1 B

Version	Revision Date:	SDS Number:	Date of last issue: 09.10.2023
1.5	28.10.2024	400000009925	Date of first issue: 17.03.2020

Print Date 10.02.2025

Classification Code : F1
Hazard Identification Number : 33
Labels : 3

ADR

Packing group : II
Classification Code : F1
Hazard Identification Number : 33
Labels : 3
Tunnel restriction code : (D/E)

RID

Packing group : II
Classification Code : F1
Hazard Identification Number : 33
Labels : 3

IMDG

Packing group : II
Labels : 3
EmS Code : F-E, S-D

IATA (Cargo)

Packing instruction (cargo aircraft) : 364
Packing instruction (LQ) : Y341
Packing group : II
Labels : Flammable Liquids

IATA (Passenger)

Packing instruction (passenger aircraft) : 353
Packing instruction (LQ) : Y341
Packing group : II
Labels : Flammable Liquids

14.5 Environmental hazards

ADN

Environmentally hazardous : no

ADR

Environmentally hazardous : no

RID

Environmentally hazardous : no

IMDG

Marine pollutant : no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

HUNTSMAN

Enriching lives through innovation

ARALDITE® 2021-1 B

Version	Revision Date:	SDS Number:	Date of last issue:
1.5	28.10.2024	400000009925	09.10.2023
			Date of first issue: 17.03.2020

Print Date 10.02.2025

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 Authorization (Article 59).	: This product does not contain substances of very high concern.
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: Conditions of restriction for the following entries should be considered: Number on list 3 Number on list 75: If you intend to use this product as tattoo ink, please contact your vendor.

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. P5c FLAMMABLE LIQUIDS

Water hazard class (Germany) : WGK 1 slightly hazardous to water
Classification according to AwSV, Annex 1 (5.2)

Other regulations:

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

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

DSL	: All components of this product are on the Canadian DSL
AIIC	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory
ENCS	: Notified. Allowed to be imported / manufactured only by the notifiers. Please contact your Huntsman sales representative for more information.
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

HUNTSMAN

Enriching lives through innovation

ARALDITE® 2021-1 B

Version	Revision Date:	SDS Number:	Date of last issue: 09.10.2023
1.5	28.10.2024	400000009925	Date of first issue: 17.03.2020

Print Date 10.02.2025

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), AIIIC (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

H225 : Highly flammable liquid and vapor.

H302 : Harmful if swallowed.

H315 : Causes skin irritation.

H317 : May cause an allergic skin reaction.

H319 : Causes serious eye irritation.

H335 : May cause respiratory irritation.

H400 : Very toxic to aquatic life.

H410 : Very toxic to aquatic life with long lasting effects.

H413 : May cause long lasting harmful effects to aquatic life.

Full text of other abbreviations

Acute Tox. : Acute toxicity

Aquatic Acute : Short-term (acute) aquatic hazard

Aquatic Chronic : Long-term (chronic) aquatic hazard

Eye Irrit. : Eye irritation

Flam. Liq. : Flammable liquids

Skin Irrit. : Skin irritation

Skin Sens. : Skin sensitisation

STOT SE : Specific target organ toxicity - single exposure

2009/161/EU : Europe. COMMISSION DIRECTIVE 2009/161/EU establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC

DE DFG MAK : Germany. MAK BAT Annex IIa

DE TRGS 900 : Germany. TRGS 900 - Occupational exposure limit values.

2009/161/EU / TWA : Limit Value - eight hours

2009/161/EU / STEL : Short term exposure limit

DE DFG MAK / MAK : MAK value

DE TRGS 900 / AGW : Time Weighted Average

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

HUNTSMAN

Enriching lives through innovation

ARALDITE® 2021-1 B

Version	Revision Date:	SDS Number:	Date of last issue: 09.10.2023
1.5	28.10.2024	400000009925	Date of first issue: 17.03.2020

Print Date 10.02.2025

Further information

Classification of the mixture:

Flam. Liq. 2	H225
Skin Irrit. 2	H315
Skin Sens. 1	H317
STOT SE 3	H335

Classification procedure:

Based on product data or assessment
Calculation method
Calculation method
Calculation method

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