

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name : ARALDITE® 2021-1 A

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

Use of the Substance/Mixture : Adhesives

1.3 Details of the supplier of the safety data sheet

Company	: Huntsman Advanced Materials (Switzerland) GmbH
Address	: Klybeckstrasse 200 CH-4057 Basel Switzerland
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 telephoneEmergency telephone : 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
Swiss Toxicologic Information Centre - Emergency Phone 145
(24 h)
+41 44 251 5151 (from outside Switzerland)**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 vapour.
Skin corrosion, Category 1B	H314: Causes severe skin burns and eye damage.
Skin sensitization, Category 1	H317: May cause an allergic skin reaction.
Specific target organ systemic toxicity - single exposure, Category 3, Respiratory	H335: May cause respiratory irritation.

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

system

Chronic aquatic toxicity, Category 3

H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements**Labeling (REGULATION (EC) No 1272/2008)**

Hazard pictograms

:



Signal Word

: Danger

Hazard Statements

:	H225	Highly flammable liquid and vapour.
	H314	Causes severe skin burns and eye damage.
	H317	May cause an allergic skin reaction.
	H335	May cause respiratory irritation.
	H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements

: **Prevention:**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

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 or doctor/ physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P235	Keep cool.
------	------------

Disposal:

P501	Dispose of contents and container in accordance with all local, regional, national and international regulations.
------	---

Hazardous ingredients which must be listed on the label:

methyl methacrylate

methacrylic acid

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

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.

No information available.

SECTION 3: Composition/information on ingredients**3.2 Mixtures****Hazardous ingredients**

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
methyl methacrylate	80-62-6 201-297-1	F; R11 Xi; R37/38 R43	Flam. Liq.2; H225 STOT SE3; H335 Skin Irrit.2; H315 Skin Sens.1; H317	30 - 60
methacrylic acid	79-41-4 201-204-4	C; R35 Xn; R21/22	Acute Tox.4; H302 Skin Corr.1A; H314 STOT SE3; H335 Eye Dam.1; H318 Acute Tox.4; H332 Acute Tox.3; H311	7 - 13
2,6-di-tert-butyl-p-cresol	128-37-0 204-881-4	N; R50/53	Aquatic Acute1; H400 Aquatic Chronic1; H410	1 - 3
α,α-dimethylbenzyl hydroperoxide	80-15-9 201-254-7	O; R 7 T; R23 C; R34 Xn; R21/22- R48/20/22 N; R51-R53 R53 Xn; R48/20/22	Org. Perox.E; H242 Acute Tox.3; H331 Acute Tox.4; H302 STOT RE2; H373 Skin Corr.1B; H314 Aquatic Chronic2; H411 Eye Dam.1; H318 STOT SE3; H335 Acute Tox.4; H312	0.1 - 1

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 material safety data sheet to the doctor in attendance. |
| If inhaled | : Move to fresh air.
Consult a physician after significant exposure. |
| In case of skin contact | : Take off contaminated clothing and shoes immediately. |

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

Wash off with soap and plenty of water.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.

In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Continue rinsing eyes during transport to hospital.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
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**SECTION 5: Firefighting measures****5.1 Extinguishing media**

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

Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical

Unsuitable extinguishing media : High volume water jet

No data is available on the product itself.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting : Do not use a solid water stream as it may scatter and spread fire.

Hazardous combustion products : No data is available on the product itself.

5.3 Advice for firefighters

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

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

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

Further information : Use water spray to cool unopened containers.
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.

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.
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

None

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Advice on safe handling : For personal protection see section 8.
Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Smoking, eating and drinking should be prohibited in the application area.
Take precautionary measures against static discharges.
Container may be opened only under exhaust ventilation hood.
To avoid spills during handling keep bottle on a metal tray.
Dispose of rinse water in accordance with local and national regulations.

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

Advice on protection against fire and explosion : Avoid formation of aerosol. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. 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. Store in cool place. Keep in a 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.

Advice on common storage : Reducing agents
Strong oxidizing agents
Heavy metal salts

Storage class (TRGS 510) : 3, Flammable liquids

Recommended storage temperature : 2 - 8 °C

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Occupational Exposure Limits**

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
methyl methacrylate	80-62-6	TWA	50 ppm 210 mg/m ³	CH SUVA
Further information	Sensitizers; Substances marked with an S can lead to very strong allergic reactions., National Institute for Occupational Safety and Health, Institut National de Recherche et de Sécurité pour la prévention des accidents du travail et des maladies professionnelles, Harm to the unborn child is not to be expected when the OEL-value is respected			
		STEL	100 ppm 420 mg/m ³	CH SUVA
Further information	Sensitizers; Substances marked with an S can lead to very strong allergic reactions., National Institute for Occupational Safety and Health, Institut National de Recherche et de Sécurité pour la prévention des accidents du travail et des maladies professionnelles, Harm to the unborn child is not to be expected when the OEL-value is respected			
		TWA	50 ppm	2009/161/EU
Further information	Indicative			
		STEL	100 ppm	2009/161/EU

ARALDITE® 2021-1 A

Version 1.0 Revision Date: 14.09.2015 SDS Number: 400001013351 Date of last issue: -
 Date of first issue: 14.09.2015

Further information	Indicative			
methacrylic acid	79-41-4	TWA	5 ppm 18 mg/m ³	CH SUVA
Further information	Harm to the unborn child is not to be expected when the OEL-value is respected			
		STEL	10 ppm 36 mg/m ³	CH SUVA
Further information	Harm to the unborn child is not to be expected when the OEL-value is respected			

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

Solvent-resistant gloves (butyl-rubber)

Nitrile rubber

10 - 480 min

Remarks

: Solvent-resistant gloves
 The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it.
 Before removing gloves clean them with soap and water.

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

: In the case of vapor formation use a respirator with an approved filter.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Appearance : paste

Color : white

Odor : like acrylic

Boiling point : > 100 °C

Flash point : 10 °C

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

Method: closed cup

Solubility(ies)
Water solubility : insoluble

Viscosity
Viscosity, dynamic : 30.000 mPa.s (25 °C)
thixotropic

9.2 Other information

No data available

SECTION 10: Stability and reactivity**10.1 Reactivity**

Stable under recommended storage conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions.
No decomposition if used as directed.

Vapors may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials**10.6 Hazardous decomposition products**

Carbon oxides
Burning produces obnoxious and toxic fumes.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity****Ingredients:**

methyl methacrylate:

Acute oral toxicity : LD50 (Rat): 7.900 - 9.400 mg/kg

methacrylic acid:

Acute oral toxicity : LD50 (Rat, male and female): 1.320 - 2.260 mg/kg
Method: OECD Test Guideline 401
GLP: no

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

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

Acute oral toxicity : LD50 (Rat, male and female): > 2.930 mg/kg
Method: OECD Test Guideline 401

Ingredients:

methacrylate:
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.

methacrylic acid:
Acute inhalation toxicity : LC50 (Rat, male and female): 7,1 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Ingredients:

methacrylate:
Acute dermal toxicity : LD50 (Rabbit, male): > 5.000 mg/kg
Method: OECD Test Guideline 402

methacrylic acid:
Acute dermal toxicity : LD50 (Rabbit): 500 - 1.000 mg/kg
GLP: no

2,6-di-tert-butyl-p-cresol:
Acute dermal toxicity : LD50 (Rat, male and female): > 2.000 mg/kg
Method: OECD Test Guideline 402

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

Skin corrosion/irritation**Ingredients:**

methacrylic acid:
Species: Rabbit
Assessment: Corrosive
Method: OECD Test Guideline 404
Result: Corrosive
GLP: yes

2,6-di-tert-butyl-p-cresol:
Species: Rabbit
Assessment: No skin irritation
Result: slight irritation

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

Serious eye damage/eye irritation**Ingredients:**

methacrylic acid:

Species: Rabbit

Assessment: Corrosive

Result: Irreversible effects on the eye

GLP: no

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

Species: Rabbit

Assessment: No eye irritation

Result: Irritation to eyes, reversing within 7 days

Respiratory or skin sensitization**Ingredients:**

methyl methacrylate:

Routes of exposure: Skin

Species: Mouse

Assessment: May cause sensitization by skin contact.

Method: OECD Test Guideline 429

Result: Causes sensitization.

methacrylic acid:

Routes of exposure: Skin

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Does not cause skin sensitization.

Butylated hydroxytoluene:

Routes of exposure: Skin

Species: Humans

Result: Does not cause skin sensitization.

Assessment: No data available

Germ cell mutagenicity**Ingredients:**

methacrylic acid:

Genotoxicity in vitro

: Concentration: 33 - 4000 ug/plate

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

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

Genotoxicity in vitro

: Metabolic activation: with and without metabolic activation

Result: negative

: Metabolic activation: Metabolic activation

Result: negative

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

: Concentration: 100 - 1000 ug/plate
Metabolic activation: with and without metabolic activation
Result: negative

Ingredients:

methacrylic acid:

Genotoxicity in vivo

: Cell type: Somatic
Application Route: Inhalation
Exposure time: 2 h
Dose: 100 - 1000 ppm
Method: OECD Test Guideline 475
Result: Not classified due to inconclusive data.
GLP: no

Application Route: Inhalation
Exposure time: 6 h
Dose: 100 - 9000 ppm
Method: OECD Test Guideline 478
Result: negative
GLP: no

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

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**Ingredients:**

methacrylic acid:

Species: Rat, (male and female)

Application Route: Inhalation

Exposure time: 24 month(s)

Dose: 250 - 1000 ppm

Frequency of Treatment: 5 daily

Method: OECD Test Guideline 453

Result: negative

Species: Rat, (male and female)

Application Route: Oral

Exposure time: 24 month(s)

Dose: 12 - 3300 ppm

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

Frequency of Treatment: 7 daily
Result: negative

2,6-di-tert-butyl-p-cresol:
Species: Rat, (male and female)
Application Route: Oral
Result: negative
Target Organs: Liver

Carcinogenicity - : No data available
Assessment

Reproductive toxicity**Ingredients:**

2,6-di-tert-butyl-p-cresol:
Effects on fertility : Species: Rat, male and female
Application Route: Oral

Ingredients:

2,6-di-tert-butyl-p-cresol:
Effects on fetal development :
Species: Rat
Application Route: Oral
General Toxicity Maternal: NOAEL (No observed adverse effect level): 100 mg/kg body weight
Result: No teratogenic effects.

Reproductive toxicity - : No data available
Assessment

STOT-single exposure**Ingredients:**

methyl methacrylate:
Routes of exposure: Inhalation
Target Organs: Respiratory Tract
Assessment: May cause respiratory irritation.

STOT-repeated exposure

No data available

Repeated dose toxicity**Ingredients:**

methacrylic acid:
Species: Rat, male and female
NOEC: 500
Test atmosphere: vapor
Exposure time: 2 yrNumber of exposures: 5 d
Method: OECD Test Guideline 453

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

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

Species: Rat, male and female
NOAEL (No observed adverse effect level): 25
Application Route: Ingestion
Method: Chronic 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: Solvents may degrease the skin.

SECTION 12: Ecological information**12.1 Toxicity****Ingredients:**

methyl methacrylate:

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

Toxicity to daphnia and other : EC50 : 69 mg/l

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

aquatic invertebrates	Exposure time: 48 h
Toxicity to algae	: IC50 : > 110 mg/l Exposure time: 72 h
methacrylic acid:	
Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): 85 mg/l Exposure time: 96 h Test Type: flow-through test Test substance: Fresh water Method: Fish Acute Toxicity Test GLP: yes Remarks: Toxic to aquatic organisms.
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): > 130 mg/l Exposure time: 48 h Test Type: flow-through test Test substance: Fresh water Method: Aquatic Invertebrate Acute Toxicity Test, Freshwater Daphnids GLP: yes
Toxicity to algae	: ErC50 (Selenastrum capricornutum (green algae)): 45 mg/l Exposure time: 72 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 201 GLP: yes
Toxicity to bacteria	: EC50 (Pseudomonas putida): 270 mg/l Exposure time: 17 h Test Type: static test Test substance: Fresh water Method: DIN 38 412 Part 8 GLP: yes
Toxicity to fish (Chronic toxicity)	: GLP: yes NOEC: 10 mg/l Exposure time: 35 d Species: Brachydanio rerio (zebrafish) Test Type: flow-through test Test substance: Fresh water Method: OECD Test Guideline 210 GLP: yes
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC: 53 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: flow-through test Test substance: Fresh water Method: OECD Test Guideline 211
2,6-di-tert-butyl-p-cresol:	
Toxicity to daphnia and other	: EC50 (Daphnia magna (Water flea)): 0,61 mg/l

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

aquatic invertebrates	Exposure time: 48 h Test Type: static test Test substance: Fresh water Method: OECD Test Guideline 202
Toxicity to algae	: EC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 0,4 mg/l Exposure time: 72 h Test Type: static test Method: Directive 67/548/EEC, Annex V, C.3.
M-Factor (Acute aquatic toxicity)	: 1
Toxicity to bacteria	: IC50 (activated sludge): > 500 mg/l Exposure time: 0,5 h Method: Directive 67/548/EEC, Annex V, C.11. EC50 (activated sludge): > 10.000 mg/l Exposure time: 3 h Test Type: static test Method: Directive 67/548/EEC, Annex V, B.15.
Toxicity to fish (Chronic toxicity)	: LC0: >= 0,57 mg/l Exposure time: 96 hrs Species: Brachydanio rerio (zebrafish) Test Type: semi-static test Method: Directive 67/548/EEC, Annex V, C.1.
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC: 0,32 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: semi-static test Method: OECD Test Guideline 202 EC0: >= 0,31 mg/l Exposure time: 48 hrs Species: Daphnia magna (Water flea) Test Type: static test Method: Directive 67/548/EEC, Annex V, C.2. NOEC: 0,23 mg/l Exposure time: 48 hrs Species: Daphnia magna (Water flea) Test Type: static test Method: OECD Test Guideline 202 NOEC: 0,316 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: semi-static test Method: OECD Test Guideline 202

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

12.2 Persistence and degradability**Ingredients:**

methyl methacrylate:

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

methacrylic acid:

Biodegradability : Inoculum: activated sludge
Concentration: 3 mg/l
Result: Readily biodegradable.
Biodegradation: 86 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

Photodegradation : Test Type: Air

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

Biodegradability : Inoculum: activated sludge
Result: Inherently biodegradable.
Biodegradation: 5,2 %
Exposure time: 112 d

12.3 Bioaccumulative potential**Ingredients:**

methyl methacrylate:

Bioaccumulation : Bioconcentration factor (BCF): 3

Partition coefficient: n-octanol/water

: log Pow: 1,38

methacrylic acid:

Partition coefficient: n-octanol/water

: log Pow: 0,93 (22 °C)
pH: 2,2

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: 5,1

12.4 Mobility in soil**Ingredients:**

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

Distribution among environmental compartments : Koc: 8183

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

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 Other adverse effects**Product:**

Additional ecological information : Remarks: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

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

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**IATA**

14.1 UN number : UN 2924

14.2 UN proper shipping name : Flammable liquid, corrosive, n.o.s.
(METHYL METHACRYLATE, METHACRYLIC ACID)

14.3 Transport hazard class(es) : 3

Subsidiary risk : 8

14.4 Packing group : II

Labels : Flammable Liquids, Corrosive

Packing instruction (cargo aircraft) : 363

Packing instruction (passenger aircraft) : 352

IMDG

14.1 UN number : UN 2924

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

14.2 UN proper shipping name : FLAMMABLE LIQUID, CORROSIVE, N.O.S.
(METHYL METHACRYLATE, METHACRYLIC ACID)

14.3 Transport hazard class(es) : 3

Subsidiary risk : 8

14.4 Packing group : II

Labels : 3 (8)

EmS Code : F-E, S-C

14.5 Environmental hazards

Marine pollutant : no

ADR

14.1 UN number : UN 2924

14.2 UN proper shipping name : FLAMMABLE LIQUID, CORROSIVE, N.O.S.
(METHYL METHACRYLATE, METHACRYLIC ACID)

14.3 Transport hazard class(es) : 3

Subsidiary risk : 8

14.4 Packing group : II

Labels : 3 (8)

14.5 Environmental hazards

Marine pollutant : no

RID

14.1 UN number : UN 2924

14.2 UN proper shipping name : FLAMMABLE LIQUID, CORROSIVE, N.O.S.
(METHYL METHACRYLATE, METHACRYLIC ACID)

14.3 Transport hazard class(es) : 3

Subsidiary risk : 8

14.4 Packing group : II

Labels : 3 (8)

14.5 Environmental hazards

Marine pollutant : no

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

Not applicable for product as supplied.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Volatile organic compounds : Law on the incentive tax for volatile organic compounds (VOCV)
Volatile organic compounds (VOC) content: 0,01 %
Remarks: no VOC duties

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

CH INV : The mixture contains substances listed on the Swiss Inventory

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

TSCA	: On TSCA Inventory
DSL	: All components of this product are on the Canadian DSL.
AICS	: On the inventory, or in compliance with the inventory
NZIoC	: Not in compliance with the inventory
ENCS	: Not in compliance with the inventory
ISHL	: 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

Inventories

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

15.2 Chemical Safety Assessment**SECTION 16: Other information****Full text of R-Phrases**

R 7	: May cause fire.
R11	: Highly flammable.
R21/22	: Harmful in contact with skin and if swallowed.
R23	: Toxic by inhalation.
R34	: Causes burns.
R35	: Causes severe burns.
R37/38	: Irritating to respiratory system and skin.
R43	: May cause sensitization by skin contact.
R48/20/22	: Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R50/53	: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51	: Toxic to aquatic organisms.
R53	: May cause long-term adverse effects in the aquatic environment.

Full text of H-Statements

H225	: Highly flammable liquid and vapour.
------	---------------------------------------

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

H242	: Heating may cause a fire.
H302	: Harmful if swallowed.
H311	: Toxic in contact with skin.
H312	: Harmful in contact with skin.
H314	: Causes severe skin burns and eye damage.
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H318	: Causes serious eye damage.
H331	: Toxic if inhaled.
H332	: Harmful if inhaled.
H335	: May cause respiratory irritation.
H373	: May cause damage to organs through prolonged or repeated exposure.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.
H411	: Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
Aquatic Acute	: Acute aquatic toxicity
Aquatic Chronic	: Chronic aquatic toxicity
Eye Dam.	: Serious eye damage
Flam. Liq.	: Flammable liquids
Org. Perox.	: Organic peroxides
Skin Corr.	: Skin corrosion
Skin Irrit.	: Skin irritation
Skin Sens.	: Skin sensitization
STOT RE	: Specific target organ systemic toxicity - repeated exposure
STOT SE	: Specific target organ systemic toxicity - single exposure

While 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.

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. NO PART OF THIS DATA SHEET MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM, OR BY ANY MEANS, WITHOUT PERMISSION IN WRITING FROM HUNTSMAN. ALL REQUESTS

SAFETY DATA SHEET



Enriching lives through innovation

ARALDITE® 2021-1 A

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	14.09.2015	400001013351	Date of first issue: 14.09.2015

FOR PERMISSION TO REPRODUCE MATERIAL FROM THIS DATA SHEET SHOULD BE DIRECTED TO HUNTSMAN, MANAGER, PRODUCT SAFETY AT THE ABOVE ADDRESS.