

ARALDITE® 2022-1 B

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

Trade name : ARALDITE® 2022-1 B

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 irritation, Category 2	H315: Causes skin irritation.
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.

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system

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

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H225 Highly flammable liquid and vapour.
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 dust/ fume/ gas/ mist/ vapours/ spray.
P280 Wear protective gloves/ eye protection/ face protection.

Response:
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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

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.	Classification	Classification	Concentration
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	EC-No. Registration number	(67/548/EEC)	(REGULATION (EC) No 1272/2008)	(%)
methyl methacrylate	80-62-6 201-297-1	F; R11 Xi; R37/38 R43	Flam. Liq.2; H225 Skin Irrit.2; H315 Skin Sens.1; H317 STOT SE3; H335	60 - 100
3,5-diethyl-1,2-dihydro- 1-phenyl-2- propylpyridine	34562-31-7 252-091-3	Xn; R22 Xi; R38	Acute Tox.4; H302 Skin Irrit.2; H315	3 - 7

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 in case of accidental inhalation of dust or fumes from overheating or combustion.
If symptoms persist, call a physician.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.
- In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- 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.
Obtain medical attention.

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

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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.

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

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

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

- Advice on safe handling : Avoid contact with skin and eyes.
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.
- 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. 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. 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.
- 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			

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	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
Further information	Indicative		

8.2 Exposure controls

Personal protective equipment

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

Hand protection

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 : yellow

Odor : like acrylic

Flash point : 10 °C

Density : 0,94 - 0,95 g/cm³ (23 °C)

Solubility(ies)
Water solubility : insoluble

Viscosity
Viscosity, dynamic : 30.000 - 55.000 mPa.s (20 °C)
thixotropic

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9.2 Other information

No data available

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

Stable under recommended storage conditions.
Stable under recommended storage conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.
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.

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.

Heat, flames and sparks.

10.5 Incompatible materials**10.6 Hazardous decomposition products****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

Ingredients:

methyl 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.

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Ingredients:

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

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

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

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.

Assessment: No data available

Germ cell mutagenicity

Genotoxicity in vitro : No data available

Genotoxicity in vivo : No data available

Carcinogenicity

No data available

Carcinogenicity - Assessment : No data available

Reproductive toxicity

Effects on fertility : No data available

Effects on fetal development : No data available

Reproductive toxicity - Assessment : No data available

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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

No data available

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.

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

methyl methacrylate:

Toxicity to fish : LC50 : 191 mg/l
Exposure time: 96 hToxicity to daphnia and other : EC50 : 69 mg/l
aquatic invertebrates Exposure time: 48 hToxicity to algae : IC50 : > 110 mg/l
Exposure time: 72 h**12.2 Persistence and degradability****Ingredients:**

methyl methacrylate:

Biodegradability : Result: Readily biodegradable.
Biodegradation: > 60 %
Exposure time: 28 d**12.3 Bioaccumulative potential****Ingredients:**

methyl methacrylate:

Bioaccumulation : Bioconcentration factor (BCF): 3

Partition coefficient: n- : log Pow: 1,38
octanol/water**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 Other adverse effects**Product:**Additional ecological : Remarks: There is no data available for this product.
information

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

- Product : Do not dispose of waste into sewer.
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 1247
- 14.2 UN proper shipping name** : Methyl methacrylate monomer, stabilized
- 14.3 Transport hazard class(es)** : 3
- 14.4 Packing group** : II
- Labels : Flammable Liquids
- Packing instruction (cargo aircraft) : 364
- Packing instruction (passenger aircraft) : 353

IMDG

- 14.1 UN number** : UN 1247
- 14.2 UN proper shipping name** : METHYL METHACRYLATE MONOMER, STABILIZED
- 14.3 Transport hazard class(es)** : 3
- 14.4 Packing group** : II
- Labels : 3
- EmS Code : F-E, S-D
- 14.5 Environmental hazards**
- Marine pollutant : no

ADR

- 14.1 UN number** : UN 1247
- 14.2 UN proper shipping name** : METHYL METHACRYLATE MONOMER, STABILIZED
- 14.3 Transport hazard class(es)** : 3
- 14.4 Packing group** : II
- Labels : 3
- 14.5 Environmental hazards**

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Marine pollutant : no

RID

14.1 UN number : UN 1247

14.2 UN proper shipping name : METHYL METHACRYLATE MONOMER, STABILIZED

14.3 Transport hazard class(es) : 3

14.4 Packing group : II

Labels : 3

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

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

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 : Not in compliance with the inventory

PICCS : Not in compliance with the inventory

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

Inventories

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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**

R11 : Highly flammable.
R22 : Harmful if swallowed.
R37/38 : Irritating to respiratory system and skin.
R38 : Irritating to skin.
R43 : May cause sensitization by skin contact.

Full text of H-Statements

H225 : Highly flammable liquid and vapour.
H302 : Harmful if swallowed.
H315 : Causes skin irritation.
H317 : May cause an allergic skin reaction.
H335 : May cause respiratory irritation.

Full text of other abbreviations

Acute Tox. : Acute toxicity
Flam. Liq. : Flammable liquids
Skin Irrit. : Skin irritation
Skin Sens. : Skin sensitization
STOT SE : Specific target organ systemic toxicity - single exposure

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

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SAFETY DATA SHEET



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