

ARALDITE® 2022-1 A

Version 1.1 Revision Date: 01/21/2016 SDS Number: 400000001217 Date of last issue: 01/12/2016
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SECTION 1. IDENTIFICATION

Product name : ARALDITE® 2022-1 A

Manufacturer or supplier's details

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

Recommended use of the chemical and restrictions on use

Recommended use : Adhesives

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Flammable liquids : Category 2
Skin irritation : Category 2
Serious eye damage : Category 1
Skin sensitization : Category 1
Specific target organ systemic toxicity - single exposure : Category 3 (Respiratory system)
Specific target organ systemic toxicity - repeated exposure : Category 2 (Kidney)
Acute aquatic toxicity : Category 3
Chronic aquatic toxicity : Category 3

GHS Label element

Hazard pictograms :



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- Signal Word : Danger
- Hazard Statements : H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.
H373 May cause damage to organs (Kidney) through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.
- Precautionary Statements : **Prevention:**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing must not be allowed out of the workplace.
P273 Avoid release to the environment.
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 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Storage:
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: 12

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%

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous ingredients

Chemical Name	CAS-No.	Concentration (%)
methyl methacrylate	80-62-6	30 - 60
methacrylic acid	79-41-4	3 - 7
maleic acid	110-16-7	1 - 3
Butylated hydroxytoluene	128-37-0	1 - 3
alpha,alpha-dimethylbenzyl hydroperoxide	80-15-9	0.1 - 1

SECTION 4. 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 : Immediately flush eye(s) with plenty of water.
 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.
- Most important symptoms and effects, both acute and delayed : Symptoms of poisoning may not appear for several hours.
 Keep under medical supervision for at least 48 hours.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Alcohol-resistant foam
 Carbon dioxide (CO₂)
 Dry chemical
- Unsuitable extinguishing : High volume water jet

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media

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.

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

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.

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

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : 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.

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

Methods and materials for containment and 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).

SECTION 7. HANDLING AND STORAGE

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.

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

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application area.
 Take precautionary measures against static discharges.
 Container may be opened only under exhaust ventilation hood.
 Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : 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.

Recommended storage temperature : 2 - 8 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Ingredients with workplace control parameters**

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
methyl methacrylate	80-62-6	TWA	50 ppm	ACGIH
		STEL	100 ppm	ACGIH
		TWA	100 ppm 410 mg/m ³	NIOSH REL
		TWA	100 ppm 410 mg/m ³	OSHA Z-1
		TWA	100 ppm 410 mg/m ³	OSHA PEL
methacrylic acid	79-41-4	TWA	20 ppm	ACGIH
		TWA	20 ppm 70 mg/m ³	NIOSH REL
		TWA	20 ppm 70 mg/m ³	OSHA PEL
Butylated hydroxytoluene	128-37-0	TWA (Inhalable fraction and vapor)	2 mg/m ³	ACGIH
		TWA	10 mg/m ³	OSHA PEL

Personal protective equipment

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

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.

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

Skin and body protection : impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : 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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : paste

Color : off-white

Odor : like acrylic

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

pH : No data is available on the product itself.

Flash point : 10 °C
Method: estimated, closed cup

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

Flammability (solid, gas) : No data is available on the product itself.

Upper explosion limit : No data is available on the product itself.

Lower explosion limit : No data is available on the product itself.

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

Relative vapor density : No data is available on the product itself.

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

Density : 1.01 - 1.02 g/cm³ (23 °C)

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.

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

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

Viscosity : No data is available on the product itself.

Self-Accelerating decomposition temperature (SADT) : No data is available on the product itself.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable under recommended storage conditions.

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous reactions : Stable under recommended storage conditions.
No decomposition if used as directed.

Vapors may form explosive mixture with air.

Conditions to avoid : Heat, flames and sparks.

Incompatible materials : Strong acids and strong bases
Strong oxidizing agents

Hazardous decomposition products : Burning produces obnoxious and toxic fumes.
Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

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

Acute toxicity

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

Acute inhalation toxicity - Product : Acute toxicity estimate: > 40 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: Calculation method

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

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

Skin corrosion/irritation**Ingredients:**

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

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maleic acid:
Species: Rabbit
Assessment: Mild skin irritant
Method: OECD Test Guideline 404
Result: Irritating to skin.

Butylated hydroxytoluene:
Species: Rabbit
Assessment: No skin irritation
Result: slight irritation

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

methacrylic acid:
Species: Rabbit
Result: Irreversible effects on the eye
Assessment: Corrosive

maleic acid:
Species: Rabbit
Result: Irreversible effects on the eye
Assessment: Severe eye irritation
Method: OECD Test Guideline 405

Butylated hydroxytoluene:
Species: Rabbit
Assessment: No eye irritation

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.

maleic acid:
Routes of exposure: Skin
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Causes sensitization.

Butylated hydroxytoluene:
Routes of exposure: Skin
Species: Humans
Result: Does not cause skin sensitization.

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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

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

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

Butylated hydroxytoluene:
Genotoxicity in vitro : Metabolic activation: with and without metabolic activation
Result: negative

Metabolic activation: Metabolic activation
Result: negative

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.

Application Route: Inhalation
Exposure time: 6 h
Dose: 100 - 9000 ppm
Method: OECD Test Guideline 478
Result: negative

Butylated hydroxytoluene:
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

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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

Frequency of Treatment: 7 daily

Result: negative

Butylated hydroxytoluene:

Species: Rat, (male and female)

Application Route: Oral

Result: negative

Target Organs: Liver

Carcinogenicity - Assessment : No data available

IARC

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

OSHA

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

NTP

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

Reproductive toxicity**Ingredients:**

maleic acid:

Effects on fertility

: Species: Rat, male and female
Application Route: Oral
Target Organs: Bladder
Method: OECD Test Guideline 416

Target Organs: Kidney

Butylated hydroxytoluene:

Species: Rat, male and female

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Application Route: Oral

Ingredients:

Butylated hydroxytoluene:

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 - Assessment : No data available

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 ppm

Test atmosphere: vapor

Exposure time: 2 yr

Number of exposures: 5 d

Method: OECD Test Guideline 453

maleic acid:

Species: Rat, male and female

No-observed-effect level: 40 mg/kg

Application Route: Ingestion

Exposure time: 2,160 h

Number of exposures: 7 d

Method: Subchronic toxicity

Butylated hydroxytoluene:

Species: Rat, male and female

NOAEL (No observed adverse effect level): 25 mg/kg/d

Application Route: Ingestion

Method: Chronic toxicity

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Repeated dose toxicity - Assessment : No data available

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**Ecotoxicity****Ingredients:**

methyl methacrylate:

Toxicity to fish : LC50: 191 mg/l
Exposure time: 96 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
Remarks: Toxic to aquatic organisms.

maleic acid:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 75 mg/l
Exposure time: 96 h

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Test Type: static test
Test substance: Fresh water
Method: OPPTS 850.1075

Ingredients:

methyl methacrylate:

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

methacrylic acid:

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

maleic acid:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 42.81 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 202

Butylated hydroxytoluene:

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.61 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 202

Ingredients:

methyl methacrylate:

Toxicity to algae : IC50: > 110 mg/l
Exposure time: 72 h

methacrylic acid:

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

maleic acid:

Toxicity to algae : ErC50 (Selenastrum capricornutum (green algae)): 74.35 mg/l
Exposure time: 72 h
Test Type: static test
Test substance: Fresh water
Method: OECD Test Guideline 201

Butylated hydroxytoluene:

Toxicity to algae : EC50 (Desmodesmus subspicatus (Scenedesmus subspicatus)): > 0.4 mg/l
Exposure time: 72 h
Test Type: static test

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Method: Directive 67/548/EEC, Annex V, C.3.

Ingredients:

Butylated hydroxytoluene:
M-Factor (Acute aquatic
toxicity) : 1

Ingredients:

methacrylic acid:
Toxicity to fish (Chronic
toxicity) : NOEC (Brachydanio rerio (zebrafish)): 10 mg/l
Exposure time: 35 d
Test Type: flow-through test
Test substance: Fresh water
Method: OECD Test Guideline 210

Butylated hydroxytoluene:
Toxicity to fish (Chronic
toxicity) : LC0 (Brachydanio rerio (zebrafish)): >= 0.57 mg/l
Exposure time: 96 hrs
Test Type: semi-static test
Method: Directive 67/548/EEC, Annex V, C.1.

Ingredients:

methacrylic acid:
Toxicity to daphnia and other
aquatic invertebrates
(Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 53 mg/l
Exposure time: 21 d
Test Type: flow-through test
Test substance: Fresh water
Method: OECD Test Guideline 211

Butylated hydroxytoluene:
Toxicity to daphnia and other
aquatic invertebrates
(Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.32 mg/l
Exposure time: 21 d
Test Type: semi-static test
Method: OECD Test Guideline 202

EC0 (Daphnia magna (Water flea)): >= 0.31 mg/l
Exposure time: 48 hrs
Test Type: static test
Method: Directive 67/548/EEC, Annex V, C.2.

NOEC (Daphnia magna (Water flea)): 0.23 mg/l
Exposure time: 48 hrs
Test Type: static test
Method: OECD Test Guideline 202

NOEC (Daphnia magna (Water flea)): 0.316 mg/l
Exposure time: 21 d
Test Type: semi-static test
Method: OECD Test Guideline 202

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

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Ingredients:

methacrylic acid:
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

Butylated hydroxytoluene:
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 soil dwelling organisms : No data available

Plant toxicity : No data available

Sediment toxicity : No data available

Toxicity to terrestrial organisms : No data available

Ecotoxicology Assessment
Acute aquatic toxicity : No data available

Chronic aquatic toxicity : No data available

Toxicity Data on Soil : No data available

Other organisms relevant to the environment : No data available

Further information

The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 12 %

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

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maleic acid:
Biodegradability : Inoculum: Sewage (STP effluent)
Concentration: 13.78 mg/l
Result: Readily biodegradable.
Biodegradation: ca. 97 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Butylated hydroxytoluene:
Biodegradability : Inoculum: activated sludge
Result: Inherently biodegradable.
Biodegradation: 5.2 %
Exposure time: 112 d

Biochemical Oxygen Demand (BOD) : No data available

Chemical Oxygen Demand (COD) : No data available

BOD/COD : No data available

ThOD : No data available

BOD/ThOD : No data available

Dissolved organic carbon (DOC) : No data available

Physico-chemical removability : No data available

Stability in water : No data available

Ingredients:

methacrylic acid:
Photodegradation : Test Type: Air

Impact on Sewage Treatment : No data available

Bioaccumulative potential**Ingredients:**

methyl methacrylate:
Bioaccumulation : Bioconcentration factor (BCF): 3

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

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Ingredients:

methyl methacrylate:
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

maleic acid:
Partition coefficient: n-octanol/water : log Pow: -1.3 (20 °C)
pH: 2.5
Method: OECD Test Guideline 107

Butylated hydroxytoluene:
Partition coefficient: n-octanol/water : log Pow: 5.1

Mobility in soil

Mobility : No data available

Ingredients:

Butylated hydroxytoluene:
Distribution among environmental compartments : Koc: 8183.
Stability in soil : No data available

Other adverse effects

Environmental fate and pathways : No data available

Results of PBT and vPvB assessment : No data available

Endocrine disrupting potential : No data available

Adsorbed organic bound halogens (AOX) : No data available

Hazardous to the ozone layer

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82
Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

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

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Global warming potential (GWP) : No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : 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**International Regulation****IATA**

UN/ID No. : UN 1133
Proper shipping name : Adhesives
Class : 3
Packing group : II
Labels : Flammable Liquids
Packing instruction (cargo aircraft) : 364
Packing instruction (passenger aircraft) : 353

IMDG

UN number : UN 1133
Proper shipping name : ADHESIVES
Class : 3
Packing group : II
Labels : 3
EmS Code : F-E, S-D
Marine pollutant : no

Distributed by:
Rudolph Bros. & Co.
6550 Oley Speaks Way
Canal Winchester, OH 43110
Phone: 614-833-0707
Fax: 800-600-9508
e-mail: rbcsupport@rudbro.com
www.rudbro.com

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

Not applicable for product as supplied.

Domestic regulation

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DOT Classification

UN/ID/NA number	: UN 1133
Proper shipping name	: ADHESIVES
Class	: 3
Packing group	: II
Labels	: FLAMMABLE LIQUID
ERG Code	: 128
Marine pollutant	: no

SECTION 15. REGULATORY INFORMATION

TSCA - 5(a) Significant New Use Rule List of Chemicals : Not relevant

EPCRA - Emergency Planning and Community Right-to-Know

SARA 311/312 Hazards : Fire Hazard
Chronic Health Hazard

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

methyl methacrylate	80-62-6	53.9932 %
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Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

methyl methacrylate	80-62-6	53.9932 %
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This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

California Prop 65 WARNING! This product contains a chemical known in the State of California to cause cancer.

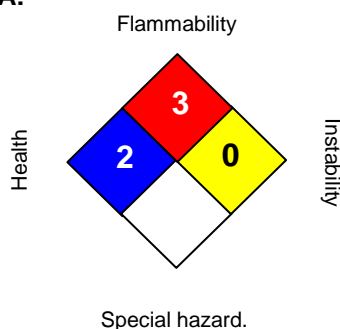
1,1,2-trichloroethane	79-00-5
cumene	98-82-8

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 determined
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

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SECTION 16. OTHER INFORMATION**Further information****NFPA:****HMIS III:**

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,

2 = Moderate, 3 = High

4 = Extreme, * = Chronic

Revision Date : 01/21/2016

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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.

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