

# Associated Technologies AT- 4020 Resin

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 09/23/2014 Version: 1.0

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

#### 1.1. Product identifier

Product form : Mixtures  
Product name : Associated Technologies AT-4020 Resin  
Product code : Associated Technologies AT-4020 Resin  
Formula : Associated Technologies AT-4020

Use of the substance/mixture : Adhesive

#### 1.3. Details of the supplier of the safety data sheet

Associated Technologies  
57 Ozick Drive – Suite G  
Durham, CT 06422  
860-788-3380

Emergency number : (800) 255-3924 (CHEM•TEL)  
Outside North America #: (813) 248-0585 (Call Collect)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS-US)

Flam. Liq. 2	H225
Skin Irrit. 2	H315
Eye Irrit. 2A	H319
Skin Sens. 1	H317
Aquatic Acute 3	H402

##### GHS-US labeling

Hazard pictograms (GHS-US) :



GHS02

GHS07

Signal word (GHS-US) : Danger.

Hazard statements (GHS-US) : H225 - Highly flammable liquid and vapor  
H315 - Causes skin irritation  
H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation  
H402 - Harmful to aquatic life

Precautionary statements (GHS-US) : P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking  
P233 - Keep container tightly closed  
P240 - Ground/bond container and receiving equipment  
P241 - Use explosion-proof electrical equipment  
P242 - Use only non-sparking tools  
P243 - Take precautionary measures against static discharge  
P261 - Avoid breathing vapors  
P270 - Do not eat, drink or smoke when using this product  
P301 + P330 + P331 - If swallowed: rinse mouth. Do NOT induce vomiting  
P273 - Avoid release to the environment  
P280 - Wear eye protection, protective clothing, protective gloves  
P314 - Get medical advice/attention if you feel unwell  
P304 + P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P363 - Wash contaminated clothing before reuse

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P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention  
P337 + P313 - If eye irritation persists: Get medical advice/attention  
P411 + P235 - Store at temperatures not exceeding 38C/100F. Keep cool.  
P370 + P378 - In case of fire: Use dry chemical, CO<sub>2</sub>, or Foam to extinguish P403 + P235 - Store in a cool and well-ventilated place.  
P501 - Dispose of contents/container to an approved waste disposal plant, in accordance with applicable local, state, national laws  
P202 - Do not handle until all safety precautions have been read and understood  
P262 - Do not get in eyes, on skin, or on clothing  
P271 - Use only outdoors or in a well-ventilated area  
P302 - IF ON SKIN: Wash skin with mild soap and water.

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS-US)

No data available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification (GHS-US)
methylmethacrylate, monomer, inhibited	(CAS No) 80-62-6	25 - 60	Flam. Liq. 2, H225 Aquatic Acute 3, H402
Calcium Carbonate	(CAS No) 1317-65-3	5.46 - 9.1	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1B, H317 STOT SE 3, H335
methacrylic acid, stabilized	(CAS No) 79-41-4	5 - 10	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Aquatic Acute 3, H402
Urethane Methacrylate Oligomer	(CAS No) Proprietary	< 5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
p-toluenesulfonyl chloride	(CAS No) 98-59-9	1.05 - 1.75	Skin Irrit. 2, H315 Eye Dam. 1, H318
Ethoxylated Trimethylolpropane Triacrylate	(CAS No) 28961-43-5	~ 1.275	Eye Irrit. 2A, H319 Skin Sens. 1B, H317
2,6-di-tert-butyl-p-cresol	(CAS No) 128-37-0	< 5	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400
cumene hydroperoxide	(CAS No) 80-15-9	1 - 1.125	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 2 (Dermal), H310 Acute Tox. 2 (Inhalation:vapour), H330 Aquatic Acute 2, H401

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Immediately consult a doctor/medical service.
First-aid measures after skin contact	: Wash with plenty of soap and water. Remove contaminated clothing. If skin irritation or rash occurs: Consult a doctor/medical service.
First-aid measures after eye contact	: Immediately flush eyes thoroughly with water for at least 15 minutes. Get medical advice/attention.
First-aid measures after ingestion	: Get immediate medical attention. Rinse mouth with water. Drink plenty of water. Do NOT induce vomiting.
Symptoms/injuries after inhalation	: Coughing. Shortness of breath.
Symptoms/injuries after skin contact	: Causes skin irritation. Itching. Red skin. May cause an allergic skin reaction.
Symptoms/injuries after eye contact	: Moderate eye irritant. Redness of the eye tissue. Lacrimation.
Symptoms/injuries after ingestion	: No data available.

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Chronic symptoms : respiratory disorders. skin disorders. eye disorders.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : carbon dioxide (CO<sub>2</sub>), dry chemical powder, foam.

Unsuitable extinguishing media : Do not use water jet to extinguish.

Fire hazard : Highly flammable liquid and vapor. Heating may cause a fire or explosion. Insoluble in water. May build up electrostatic charges: risk of ignition.

Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. May form flammable/explosive vapor-air mixture.

Reactivity : Alkalis. Amines. Moisture. Oxidizers. Reducing agents. Strong acids, bases. Ultraviolet radiation.

Precautionary measures fire : Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: seal off low-lying areas.

Firefighting instructions : Exercise caution when fighting any chemical fire. If exposed to fire cool the closed containers by spraying with water.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Firefighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Other information : Hazardous combustion products: carbon oxides (CO and CO<sub>2</sub>). Nitrogen oxides. Isocyanates. Hydrogen cyanide. smokes. Other toxic vapors.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Eliminate ignition sources. Ensure adequate air ventilation. Try to stop release. Use protective clothing. Use special care to avoid static electric charges. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.

#### 6.1.1. For non-emergency personnel

Protective equipment : Gloves. Protective clothing. Safety glasses.

Emergency procedures : Evacuate unnecessary personnel. Keep upwind. No naked flames or sparks. Seal off low-lying areas. Use personal protective equipment as required. Wash contaminated clothes.

#### 6.1.2. For emergency responders

Protective equipment : In case of insufficient ventilation, wear suitable respiratory equipment. Use chemically protective clothing. Wear recommended personal protective equipment.

Emergency procedures : Stop leak if safe to do so. Ventilate area.

Avoid release to the environment. Notify authorities if liquid enters sewers or public waters. Prevent soil and water pollution. Try to stop release.

For containment : Dam up the liquid spill. Plug the leak, cut off the supply. Tip the container on one side to stop the leakage.

Methods for cleaning up : Take up liquid spill into inert absorbent material. Absorbed substance: shovel into open drums.

See also sections 8 and 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Keep away from Heat, sources of ignition. - No smoking. In use, may form flammable vapor-air mixture. Handle empty containers with care because residual vapors are flammable.

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- Precautions for safe handling : Comply with the legal requirements. Do not eat, drink or smoke when using this product. Do not discharge the waste into the drain. Do not get in eyes, on skin, or on clothing. Do not handle until all safety precautions have been read and understood. Keep away from sources of ignition - No smoking. Observe normal hygiene standards.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

### 7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Comply with applicable regulations. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical equipment.
- Storage conditions : Keep container tightly closed. Protect from moisture. Keep only in the original container in a cool, well ventilated place away from : Direct sunlight., Heat sources. Store at temperatures not exceeding 37 C.
- Incompatible products : amines. Oxidizing agent. Reducing agents. strong acids. Strong bases.
- Incompatible materials : Refer to Section 10 on Incompatible Materials.
- Maximum storage period : 6 months @ 23C stored in original SEALED container
- Storage temperature : 8 - 38 °C
- Storage area : Keep out of direct sunlight. Store away from heat. Keep only in the original container. Store in a cool area. Store in a dry area. Store in a well-ventilated place.

### 7.3. Specific end use(s)

Adhesive: component.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

- Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Keep concentrations well below lower explosion limits. Ensure exposure is below occupational exposure limits (where available).
- Personal protective equipment : Personal protective equipment should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling the product. Gloves. Protective clothing. Safety glasses.



- Materials for protective clothing : nitrile rubber. Chemical resistant.
- Hand protection : Nitrile rubber (NBR) /. Wear chemically resistant protective gloves.
- Eye protection : Wear safety glasses with side shields.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : Insufficient ventilation: wear respiratory protection.
- Thermal hazard protection : None necessary.
- Environmental exposure controls : Specific risk management measures are not required beyond good industrial hygiene and safety procedures.
- Other information : Do not eat, drink or smoke when using this product.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Appearance : gel.
- Color : Off-white
- Odor : Pungent.;Acrylic
- Odor threshold : No data available
- pH : No data available
- Relative evaporation rate (butyl acetate=1) : No data available
- Melting point : No data available

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Freezing point	: No data available
Boiling point	: 101°C
Flash point	: 10.5°C MMA
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: 29 mm Hg @ 20 C
Relative vapor density at 20 °C	: > 1
Relative density	: 0.94 - 1
Solubility	: Insoluble in water. Water: Solubility in water of component(s) of the mixture : •: 1.5 g/100ml •: •: < 0.1 g/100ml •: 9.7 g/100ml •: > 10 g/100ml •: < 0.0001 g/100ml •: 79 g/100ml •: 0.000076 g/100ml •: 4.0 g/100ml •: < 0.001 g/100ml •: 0.005 g/100ml •: 0.71 g/100ml •: 0.55 g/100ml •: 67 g/100ml •: < 0.1 g/100ml •: •: 0.0014 g/100ml •: •: •: 103 g/100ml •: 69 g/100ml •:
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Heating may cause a fire or explosion.
Oxidizing properties	: No data available
Explosive limits	: 2.1 - 12.5 vol % MMA

### 9.2. Other information

VOC content : < 50 g/l Activator and Adhesive mixed

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Alkalis. Amines. Moisture. Oxidizers. Reducing agents. Strong acids, bases. Ultraviolet radiation.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization may occur. Avoid Excessive aging, excessive heat, and inhibitor depletion.

### 10.4. Conditions to avoid

Direct sunlight. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. High temperature.

### 10.5. Incompatible materials

Refer to Section 10.1.

### 10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. hydrocarbons. Hydrogen Cyanide. Isocyanate containing vapors. Oxides of Nitrogen. irritating organic vapors.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

<b>methacrylate, monomer, inhibited (80-62-6)</b>	
LD50 oral rat	> 6000 mg/kg (7900 mg/kg bodyweight; 8400 mg/kg bodyweight; Rat; Rat; Rat)
LD50 dermal rabbit	> 7550 mg/kg (>5000 mg/kg bodyweight; Rabbit; Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	27.5 mg/l/4h (Rat)
ATE US (vapours)	27.50000000 mg/l/4h
ATE US (dust,mist)	27.50000000 mg/l/4h
<b>Calcium Carbonate (1317-65-3)</b>	
LD50 oral rat	6450 mg/kg (Rat)
ATE US (oral)	6450.00000000 mg/kg body weight
<b>methacrylic acid, stabilized (79-41-4)</b>	
LD50 oral rat	1060 (Rat)

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<b>methacrylic acid, stabilized (79-41-4)</b>	
LD50 dermal rabbit	500 (Rabbit)
LC50 inhalation rat (mg/l)	7 mg/l/4h (Rat)
ATE US (oral)	1060.00000000 mg/kg body weight
ATE US (dermal)	500.00000000 mg/kg body weight
ATE US (vapours)	7.00000000 mg/l/4h
ATE US (dust,mist)	7.00000000 mg/l/4h

<b>Ethoxylated Trimethylolpropane Triacrylate (28961-43-5)</b>	
LD50 oral rat	> 5000 mg/kg (Rat)

<b>2,6-di-tert-butyl-p-cresol (128-37-0)</b>	
LD50 oral rat	890 mg/kg (>6000 mg/kg bodyweight; Rat; Rat; Experimental value,>6000 mg/kg bodyweight; Rat; Rat; Experimental value)
LD50 dermal rat	> 2000 mg/kg (>2000 mg/kg bodyweight; Rat; Rat; Experimental value)
ATE US (oral)	890.00000000 mg/kg body weight

<b>cumene hydroperoxide (80-15-9)</b>	
LD50 oral rat	382 mg/kg (Rat)
LD50 dermal rat	1200-1520,Rat
LD50 dermal rabbit	133 mg/kg body weight (Rabbit)
LC50 inhalation rat (mg/l)	1.37 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	220 ppm/4h (Rat)
ATE US (oral)	382.00000000 mg/kg body weight
ATE US (dermal)	133.00000000 mg/kg body weight
ATE US (gases)	220.00000000 ppmV/4h
ATE US (vapours)	1.37000000 mg/l/4h
ATE US (dust,mist)	1.37000000 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

<b>methymethacrylate, monomer, inhibited (80-62-6)</b>	
IARC group	3 - Not Classifiable

<b>2,6-di-tert-butyl-p-cresol (128-37-0)</b>	
IARC group	3 - Not Classifiable

Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: Coughing. Shortness of breath.
Symptoms/injuries after skin contact	: Causes skin irritation. Itching. Red skin. May cause an allergic skin reaction.
Symptoms/injuries after eye contact	: Moderate eye irritant. Redness of the eye tissue. Lacrimation.
Symptoms/injuries after ingestion	: No data available.
Chronic symptoms	: respiratory disorders. skin disorders. eye disorders.

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>methymethacrylate, monomer, inhibited (80-62-6)</b>	
LC50 fish 1	130 mg/l (96 h; Pimephales promelas; Lethal)
EC50 Daphnia 1	69 mg/l (48 h; Daphnia magna; GLP)
LC50 fish 2	191 mg/l (96 h; Lepomis macrochirus)
EC50 Daphnia 2	502 mg/l (24 h; Daphnia magna)
TLM fish 1	159 mg/l (96 h; Pimephales promelas)
Threshold limit other aquatic organisms 1	100 mg/l (16 h; Pseudomonas putida)
Threshold limit algae 1	37 mg/l (168 h; Scenedesmus quadricauda; Toxicity test)
Threshold limit algae 2	120 mg/l (192 h; Microcystis aeruginosa)

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<b>methacrylic acid, stabilized (79-41-4)</b>	
LC50 fish 1	100-180,96 h; Brachydanio rerio
EC50 Daphnia 1	100-180,24 h; Daphnia magna; Nocivity test
LC50 fish 2	85 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 2	> 130 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	45 mg/l (72 h; Selenastrum capricornutum)

<b>2,6-di-tert-butyl-p-cresol (128-37-0)</b>	
LC50 fish 1	0.199 mg/l (96 h; Pisces)
EC50 Daphnia 1	0.48 mg/l (48 h; Daphnia magna; GLP)
Threshold limit algae 1	> 0.4 mg/l (72 h; Scenedesmus subspicatus; GLP)
Threshold limit algae 2	0.363 mg/l (Algae; Chronic)

<b>cumene hydroperoxide (80-15-9)</b>	
LC50 fish 1	14 mg/l (48 h; Leuciscus idus; GLP)
EC50 Daphnia 1	7 mg/l (24 h; Daphnia magna; Static system)
LC50 fish 2	3.9 mg/l (96 h; Oncorhynchus mykiss)
EC50 Daphnia 2	18.84 mg/l (48 h; Daphnia magna; GLP)
Threshold limit algae 1	1.2 mg/l (Microcystis aeruginosa)
Threshold limit algae 2	7.4 mg/l (Scenedesmus quadricauda)

### 12.2. Persistence and degradability

<b>methylmethacrylate, monomer, inhibited (80-62-6)</b>	
Persistence and degradability	Readily biodegradable in water. No (test)data on mobility of the substance available. Photolysis in the air.
Biochemical oxygen demand (BOD)	0.14 g O <sub>2</sub> /g substance
ThOD	1.9 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.073 % ThOD

<b>Calcium Carbonate (1317-65-3)</b>	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

<b>methacrylic acid, stabilized (79-41-4)</b>	
Persistence and degradability	Readily biodegradable in water. Photodegradation in the air.
Biochemical oxygen demand (BOD)	0.89 g O <sub>2</sub> /g substance
ThOD	1.67 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.5329 % ThOD

<b>p-toluenesulfonyl chloride (98-59-9)</b>	
Persistence and degradability	Biodegradability in water: no data available.

<b>Ethoxylated Trimethylolpropane Triacrylate (28961-43-5)</b>	
Persistence and degradability	Biodegradability in water: no data available. No (test)data on mobility of the components of the mixture available.

<b>2,6-di-tert-butyl-p-cresol (128-37-0)</b>	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil. Adsorbs into the soil. Low potential for mobility in soil. Photooxidation in the air.
Biochemical oxygen demand (BOD)	0.51 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.27 g O <sub>2</sub> /g substance
ThOD	2.977 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.17 % ThOD

<b>cumene hydroperoxide (80-15-9)</b>	
Persistence and degradability	Not readily biodegradable in water. Highly mobile in soil.

### 12.3. Bioaccumulative potential

<b>methylmethacrylate, monomer, inhibited (80-62-6)</b>	
BCF fish 1	2.97 - 3.5 (Pisces)
Log Pow	1.32 - 1.38 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 20 °C, Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 20 °C, Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

<b>Calcium Carbonate (1317-65-3)</b>	
Bioaccumulative potential	No bioaccumulation data available.

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<b>methacrylic acid, stabilized (79-41-4)</b>	
Log Pow	0.93
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
<b>p-toluenesulfonyl chloride (98-59-9)</b>	
Log Pow	3.49
Bioaccumulative potential	No bioaccumulation data available.
<b>Ethoxylated Trimethylolpropane Triacrylate (28961-43-5)</b>	
Bioaccumulative potential	No bioaccumulation data available.
<b>2,6-di-tert-butyl-p-cresol (128-37-0)</b>	
BCF fish 1	230 - 2500 (56 days; Cyprinus carpio)
Log Pow	5.1 (Experimental value)
<b>cumene hydroperoxide (80-15-9)</b>	
BCF other aquatic organisms 1	9
Log Pow	1.6 (Experimental value; 25 °C, Experimental value; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

### 12.4. Mobility in soil

<b>methylmethacrylate, monomer, inhibited (80-62-6)</b>	
Surface tension	0.028 N/m (20 °C)
<b>methacrylic acid, stabilized (79-41-4)</b>	
Surface tension	0.02 N/m (23 °C)
<b>2,6-di-tert-butyl-p-cresol (128-37-0)</b>	
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.
<b>cumene hydroperoxide (80-15-9)</b>	
Surface tension	0.028 N/m (-9 °C)

### 12.5. Other adverse effects

Effect on ozone layer	: No additional information available
Effect on the global warming	: No known ecological damage caused by this product.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste disposal recommendations	: Dispose of contents/container to an approved waste disposal facility in accordance with applicable local, state, national laws.
Additional information	: Handle empty containers with care because residual vapors are flammable.
Ecology - waste materials	: Avoid release to the environment.

## SECTION 14: Transport information

In accordance with DOT	
UN-No.(DOT)	: 1133
DOT Proper Shipping Name	: Adhesives
Department of Transportation (DOT) Hazard Classes	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT)	: 3 - Flammable liquid



Packing group (DOT)	: II - Medium Danger
DOT Packaging Exceptions (49 CFR 173.xxx)	: 154
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 173
DOT Packaging Bulk (49 CFR 173.xxx)	: 242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 5L



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DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60L

DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

### Additional information

Other information : No supplementary information available.

State during transport (ADR-RID) : as liquid.

### ADR

Transport document description : UN 1133, 3, II, (D/E)

Packing group (ADR) : II

Class (ADR) : 3 - Flammable liquid

Hazard identification number (Kemler No.) : 33

Classification code (ADR) : F1

Danger labels (ADR) : 3 - Flammable liquids



Orange plates :



Tunnel restriction code (ADR) : D/E

LQ : 5L

Excepted quantities (ADR) : E2

### Transport by sea

UN-No. (IMDG) : 1133

Proper Shipping Name (IMDG) : Adhesives

Class (IMDG) : 3 - Flammable liquids

Packing group (IMDG) : II - substances presenting medium danger

EmS-No. (1) : F-E

EmS-No. (2) : S-D

### Air transport

UN-No.(IATA) : 1133

Proper Shipping Name (IATA) : Adhesives

Class (IATA) : 3 - Flammable Liquids

Packing group (IATA) : II - Medium Danger

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

AT-4020 Resin	
EPA TSCA Regulatory Flag	All components of this product are listed on the TSCA Inventory of Chemical Substances or are exempt from listing.
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Fire hazard Immediate (acute) health hazard

methvlmethacrvlate, monomer, inhibited (80-62-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	All components of this product are listed on the TSCA Inventory of Chemical Substances or are exempt from listing.
RQ (Reportable quantity, section 304 of EPA's List of Lists) :	None

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<b>methymethacrylate, monomer, inhibited (80-62-6)</b>	
SARA Section 302 Threshold Planning Quantity (TPQ)	None
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Reactive hazard
SARA Section 313 - Emission Reporting	100 %

<b>methacrylic acid, stabilized (79-41-4)</b>	
EPA TSCA Regulatory Flag	All components of this product are listed on the TSCA Inventory of Chemical Substances or are exempt from listing.
RQ (Reportable quantity, section 304 of EPA's List of Lists) :	None
SARA Section 302 Threshold Planning Quantity (TPQ)	None
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Fire hazard
SARA Section 313 - Emission Reporting	None

<b>p-toluenesulfonyl chloride (98-59-9)</b>	
RQ (Reportable quantity, section 304 of EPA's List of Lists) :	None
SARA Section 302 Threshold Planning Quantity (TPQ)	None
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	None

<b>Ethoxylated Trimethylolpropane Triacrylate (28961-43-5)</b>	
EPA TSCA Regulatory Flag	All components of this product are listed on the TSCA Inventory of Chemical Substances or are exempt from listing.
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Reactive hazard

<b>cumene hydroperoxide (80-15-9)</b>	
EPA TSCA Regulatory Flag	All components of this product are listed on the TSCA Inventory of Chemical Substances or are exempt from listing.
RQ (Reportable quantity, section 304 of EPA's List of Lists) :	10 lb None
SARA Section 302 Threshold Planning Quantity (TPQ)	None
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Fire hazard Immediate (acute) health hazard Reactive hazard
SARA Section 313 - Emission Reporting	100 %

## 15.2. International regulations

### CANADA

<b>AT-4020 Resin</b>	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

<b>methymethacrylate, monomer, inhibited (80-62-6)</b>	
Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

<b>methacrylic acid, stabilized (79-41-4)</b>	
WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class E - Corrosive Material Class F - Dangerously Reactive Material

### EU-Regulations

No additional information available

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2	H225
Org. Perox. F	H242
Skin Corr. 1A	H314
Skin Sens. 1	H317

# Associated Technologies AT- 4020 Resin

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Muta. 1B	H340
Carc. 1B	H350
STOT SE 3	H335
Aquatic Chronic 3	H412

Full text of H-phrases: see section 16

### Classification according to Directive 67/548/EEC or 1999/45/EC

#### 15.2.2. National regulations

##### AT-4020 Resin

Components of this product are listed or exempt from listing on the Canadian Domestic Substance List.

#### 15.3. US State regulations

##### AT-4020 Resin

State or local regulations	This product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.
----------------------------	--

#### p-toluenesulfonyl chloride (98-59-9)

U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - Pennsylvania - RTK (Right to Know) List

#### Ethoxylated Trimethylolpropane Triacrylate (28961-43-5)

U.S. - Pennsylvania - RTK (Right to Know) List  
U.S. - New Jersey - Right to Know Hazardous Substance List  
There are no chemicals in this product subject to Proposition 65.

#### cumene hydroperoxide (80-15-9)

U.S. - Massachusetts - Right To Know List  
U.S. - New Jersey - Right to Know Hazardous Substance List  
U.S. - Pennsylvania - RTK (Right to Know) List  
This product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

## SECTION 16: Other information

Full text of H-phrases: see section 16:

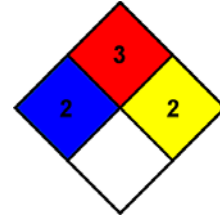
Acute Tox. 2 (Dermal)	Acute toxicity (dermal) Category 2
Acute Tox. 2 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 4	Flammable liquids Category 4
Skin Irrit. 2	skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
Skin Sens. 1B	Skin sensitization Category 1B
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H227	Combustible liquid
H302	Harmful if swallowed
H310	Fatal in contact with skin
H311	Toxic in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H330	Fatal if inhaled
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life

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- NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
- NFPA fire hazard : 3 - Liquids and solids that can be ignited under almost all ambient conditions.
- NFPA reactivity : 2 - Normally unstable and readily undergo violent decomposition but do not detonate. Also: may react violently with water or may form potentially explosive mixtures with water.



### HMIS III Rating

- Health : 2 Moderate Hazard - Temporary or minor injury may occur
- Flammability : 3 Serious Hazard
- Physical : 2 Moderate Hazard

SDS US (GHS HazCom 2012)

**DISCLAIMER:** The information contained in this data sheet is empirical or based on laboratory testing and is not intended for design purposes. Associated Technologies makes no representations or warranties of any kind concerning these data. Associated Technologies assumes no responsibility or liability for results obtained by the end-user where Associated Technologies has no control over variables of storage, substrates, surface preparation, temperature, handling and application. End-users are solely responsible for making their own tests and evaluation of this product prior to use in their manufacturing process to determine if this product is suitable for the application.

#### Associated Technologies

57 Ozick Drive – Suite G - Durham, CT 06422  
Phone 860 - 788 - 3380 - Fax 603 895 6236

[www.weldmountsystem.com](http://www.weldmountsystem.com) - [infor@weldmountsystem.com](mailto:infor@weldmountsystem.com)

# Associated Technologies AT- 4020 Activator

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue:

09/23/2014

Version: 1.0

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

Product form : Mixtures  
Product name. : Associated Technologies AT-4020 Activator  
Product code : Associated Technologies AT-4020 Activator  
Formula : Associated Technologies AT-4020

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

Use of the substance/mixture : Adhesive: component

#### 1.3. Details of the supplier of the safety data sheet

Associated Technologies  
57 Ozick Drive – Suite G  
Durham, CT 06422  
860-788-3380

#### 1.4. Emergency telephone number

Emergency number : (800) 255-3924 (CHEM•TEL)  
Outside North America #: (813) 248-0585 (Call Collect)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS-US)

Flam. Liq. 2	H225
Carc. 2	H351
Aquatic Acute 3	H402

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger.

Hazard statements (GHS-US) :

H225 - Highly flammable liquid and vapor  
H351 - Suspected of causing cancer  
H402 - Harmful to aquatic life

Precautionary statements (GHS-US) :

P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking  
P233 - Keep container tightly closed  
P240 - Ground/bond container and receiving equipment  
P241 - Use explosion-proof electrical equipment  
P242 - Use only non-sparking tools  
P243 - Take precautionary measures against static discharge  
P273 - Avoid release to the environment  
P280 - Wear eye protection, protective clothing, protective gloves  
P303 + P361 + P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
P308 + P313 - If exposed or concerned: Get medical advice/attention  
P370 + P378 - In case of fire: Use Use dry chemical, CO<sub>2</sub>, or Foam to extinguish  
P403 + P235 - Store in a cool and well-ventilated place.  
P405 - Store locked up  
P501 - Dispose of contents/container to an approved waste disposal plant, in accordance with applicable local, state, national laws

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### 2.3. Other hazards

No additional information available

No data available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

Name	Product identifier	%	Classification (GHS-US)
methylmethacrylate, monomer, inhibited	(CAS No) 80-62-6	60 - 85	Flam. Liq. 2, H225 Aquatic Acute 3, H402
titanium(IV) oxide	(CAS No) 13463-67-7	6 - 7.2	Carc. 2, H351

## SECTION 4: First aid measures

- First-aid measures general : IF exposed or concerned: Get medical advice/attention.
- First-aid measures after inhalation : If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.
- First-aid measures after skin contact : Wash with plenty of soap and water. If skin irritation or rash occurs: Consult a doctor/medical service.
- First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. If eye irritation persists: Consult a doctor/medical service.
- First-aid measures after ingestion : Immediately after ingestion: give lots of water to drink. Get immediate medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : Moderate irritation to respiratory tract. Coughing. Shortness of breath.
- Symptoms/injuries after skin contact : Causes skin irritation. Red skin. Itching. May cause an allergic skin reaction.
- Symptoms/injuries after eye contact : Causes eye irritation. Lacrimation. Redness of the eye tissue.
- Symptoms/injuries after ingestion : Toxicity by ingestion is not likely to occur.
- Chronic symptoms : Central Nervous System, Kidney, Liver, Respiratory System.

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : carbon dioxide (CO<sub>2</sub>), dry chemical powder, foam.
- Unsuitable extinguishing media : Solid water jet ineffective as extinguishing medium.

- Fire hazard : Heat destroys stabilizer against polymerization. Heating may cause a fire or explosion. Insoluble in water. This product is flammable.
- Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. May build up electrostatic charges: risk of ignition hazard.
- Reactivity : Amines. Alkalis. Moisture. Oxidizers. Reducing agents. Strong acids, bases. Ultraviolet radiation.

### 5.3. Advice for firefighters

- Precautionary measures fire : Exposure to fire/heat: keep upwind.
- Firefighting instructions : Exercise caution when fighting any chemical fire. If exposed to fire cool the closed containers by spraying with water.
- Protection during firefighting : Firefighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Do not enter fire area without proper protective equipment, including respiratory protection.
- Other information : Hazardous combustion products: carbon oxides (CO and CO<sub>2</sub>). Nitrogen oxides.

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### SECTION 6: Accidental release measures

General measures : Eliminate ignition sources. Ensure adequate air ventilation. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Use protective clothing.

#### 6.1.1. For non-emergency personnel

Protective equipment : Gloves. Protective clothing. Safety glasses.

Emergency procedures : Ensure adequate ventilation, especially in confined areas. Evacuate unnecessary personnel. Remove all sources of ignition. Use personal protective equipment as required.

#### 6.1.2. For emergency responders

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Stop leak if safe to do so. Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Try to stop release.

### 6.3. Methods and material for containment and cleaning up

For containment : Dam up the liquid spill. Contain leaking substance.

Methods for cleaning up : Take up liquid spill into a non combustible material e.g.: sand, earth, vermiculite. This material and its container must be disposed of in a safe way, and as per local legislation.

See also sections 8 and 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work.

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Comply with applicable regulations.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from direct sunlight., Heat sources.

Incompatible products : amines. Oxidizing agent. Reducing agents. strong acids. Strong bases.

Incompatible materials : Direct sunlight. Heat sources. Sources of ignition.

Maximum storage period : 6 months in original SEALED container @ 23C max temperature.

Storage temperature : ≤ 37.7 °C

Heat-ignition : KEEP SUBSTANCE AWAY FROM: ignition sources. heat sources.

Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. Reducing agents. moisture. (strong) acids. (strong) bases. amines.

Storage area : Store in a well-ventilated place. Store in a dry area. Store in a cool area. Store away from heat. Keep out of direct sunlight.

Special rules on packaging : Keep only in original container.

#### 7.3. Specific end use(s)

Adhesive: component.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

Appropriate engineering controls : Provide adequate general and local exhaust ventilation.

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Personal protective equipment : Gloves. Protective clothing. Safety glasses.



Materials for protective clothing : GIVE GOOD RESISTANCE:  
Hand protection : Wear chemically resistant protective gloves.  
Eye protection : Wear safety glasses with side shields.  
Skin and body protection : Wear suitable protective clothing.  
Respiratory protection : None necessary.  
Thermal hazard protection : None necessary.  
Environmental exposure controls : Specific risk management measures are not required beyond good industrial hygiene and safety procedures.

## SECTION 9: Physical and chemical properties

Physical state : Liquid  
Appearance : Paste.  
Color : white  
Odor : Acrylic  
Odor threshold : No data available  
pH : No data available  
Relative evaporation rate (butyl acetate=1) : No data available  
Melting point : No data available  
Freezing point : No data available  
Boiling point : 101 °C  
Flash point : 10.5 °C  
Self ignition temperature : No data available  
Decomposition temperature : No data available  
Flammability (solid, gas) : No data available  
Vapor pressure : 29 mm Hg @20C  
Relative vapor density at 20 °C : > 1  
Relative density : 0.97  
Solubility : Insoluble in water.  
Water: Solubility in water of component(s) of the mixture :  
•: 1.5 g/100ml •: •: < 0.1 g/100ml •: 0.15 g/100ml •: 0.02 g/100ml •: <0.002 g/100ml •: > 2 g/100ml •: •: 0.03 g/100ml •: < 0.1 g/100ml •: 0.07 g/100ml •: 7.3 g/100ml •: < 0.1 g/100ml •: 0.15 g/100ml •: 0.000076 g/100ml •: 4.0 g/100ml •: 10.6 g/100ml •: < 0.01 g/100ml •: 0.0014 g/100ml •: < 0.0001 g/100ml •: •: •: 103 g/100ml •: 69 g/100ml •:  
Log Pow : No data available  
Log Kow : No data available  
Viscosity, kinematic : No data available  
Viscosity, dynamic : No data available  
Explosive properties : No data available  
Oxidizing properties : No data available  
Explosive limits : 2.1 - 12.5 vol % MMA

### 9.2. Other information

VOC content : < 50 g/l Activator and Adhesive mixed

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Amines. Alkalis. Moisture. Oxidizers. Reducing agents. Strong acids, bases. Ultraviolet radiation.



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### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Refer to section 10.1 on Reactivity.

### 10.4. Conditions to avoid

Direct sunlight. Keep away from heat/sparks/open flames/hot surfaces. – Nosmoking.

### 10.5. Incompatible materials

Refer to Section 10.1.

### 10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Oxides of Nitrogen. hydrocarbons. Hydrogen Fluoride. Isocyanate containing vapors. Hydrogen Cyanide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

<b>methylmethacrylate, monomer, inhibited (80-62-6)</b>	
LD50 oral rat	> 6000 mg/kg (7900 mg/kg bodyweight; 8400 mg/kg bodyweight; Rat; Rat; Rat)
LD50 dermal rabbit	> 7550 mg/kg (>5000 mg/kg bodyweight; Rabbit; Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	27.5 mg/l/4h (Rat)
ATE US (vapours)	27.50000000 mg/l/4h
ATE US (dust,mist)	27.50000000 mg/l/4h

<b>titanium(IV) oxide (13463-67-7)</b>	
LD50 oral rat	> 10000 mg/kg (> 5000 mg/kg bodyweight; Rat; Rat; Experimental value; Experimental value,> 5000 mg/kg bodyweight; Rat; Rat; Experimental value; Experimental value)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit; Experimental value,Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	> 6.8 mg/l/4h (Rat; Experimental value,Rat; Experimental value)

Skin corrosion/irritation : Not classified  
Serious eye damage/irritation : Not classified  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Suspected of causing cancer.

<b>methylmethacrylate, monomer, inhibited (80-62-6)</b>	
IARC group	3 - Not Classifiable

<b>titanium(IV) oxide (13463-67-7)</b>	
Additional information	Inhalation of powdered form
IARC group	2B - Possibly Carcinogenic to Humans

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : Moderate irritation to respiratory tract. Coughing. Shortness of breath.

Symptoms/injuries after skin contact : Causes skin irritation. Red skin. Itching. May cause an allergic skin reaction.

Symptoms/injuries after eye contact : Causes eye irritation. Lacrimation. Redness of the eye tissue.

Symptoms/injuries after ingestion : Toxicity by ingestion is not likely to occur.

Chronic symptoms : Central Nervous System, Kidney, Liver, Respiratory System.

## SECTION 12: Ecological information

### 12.1. Toxicity

<b>methylmethacrylate, monomer, inhibited (80-62-6)</b>	
LC50 fish 1	130 mg/l (96 h; Pimephales promelas; Lethal)
EC50 Daphnia 1	69 mg/l (48 h; Daphnia magna; GLP)
LC50 fish 2	191 mg/l (96 h; Lepomis macrochirus)

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<b>methylmethacrylate, monomer, inhibited (80-62-6)</b>	
EC50 Daphnia 2	502 mg/l (24 h; Daphnia magna)
TLM fish 1	159 mg/l (96 h; Pimephales promelas)
Threshold limit other aquatic organisms 1	100 mg/l (16 h; Pseudomonas putida)
Threshold limit algae 1	37 mg/l (168 h; Scenedesmus quadricauda; Toxicity test)
Threshold limit algae 2	120 mg/l (192 h; Microcystis aeruginosa)

<b>titanium(IV) oxide (13463-67-7)</b>	
LC50 fish 1	> 1000 mg/l (96 h; Pimephales promelas)
EC50 Daphnia 1	< 1000 mg/l (432 h; Daphnia magna; Static system)
LC50 fish 2	> 1 g/l (96 h; Leuciscus idus)
EC50 Daphnia 2	< 500 mg/l (720 h; Daphnia magna; Static system)
Threshold limit algae 1	61 mg/l (72 h; Pseudokirchneriella subcapitata)

### 12.2. Persistence and degradability

<b>methylmethacrylate, monomer, inhibited (80-62-6)</b>	
Persistence and degradability	Readily biodegradable in water. No (test) data on mobility of the substance available. Photolysis in the air.
Biochemical oxygen demand (BOD)	0.14 g O <sub>2</sub> /g substance
ThOD	1.9 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.073 % ThOD

<b>titanium(IV) oxide (13463-67-7)</b>	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

### 12.3. Bioaccumulative potential

<b>methylmethacrylate, monomer, inhibited (80-62-6)</b>	
BCF fish 1	2.97 - 3.5 (Pisces)
Log Pow	1.32 - 1.38 (Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 20 °C, Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 20 °C, Experimental value; OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

<b>titanium(IV) oxide (13463-67-7)</b>	
Bioaccumulative potential	No bioaccumulation data available.

### 12.4. Mobility in soil

<b>methylmethacrylate, monomer, inhibited (80-62-6)</b>	
Surface tension	0.028 N/m (20 °C)

### 12.5. Other adverse effects

- Effect on ozone layer : No additional information available
- Effect on the global warming : No known ecological damage caused by this product.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

- Regional legislation (waste) : Disposal must be done according to official regulations.
- Waste disposal recommendations : Do not discharge into drains or the environment. Do not landfill. Dispose in a safe manner in accordance with local/national regulations.
- Additional information : Handle empty containers with care because residual vapors are flammable.
- Ecology - waste materials : Avoid release to the environment.


## SECTION 14: Transport information

- In accordance with DOT
- UN-No (DOT) : 1133
- DOT Proper Shipping Name : Adhesives
- Department of Transportation (DOT) Hazard Classes : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

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Hazard labels (DOT)	: 3 - Flammable liquid
	
Packing group (DOT)	: II - Medium Danger
DOT Special Provisions (49 CFR 172.102)	: 149 - When transported as a limited quantity or a consumer commodity, the maximum net capacity specified in 173.150(b)(2) of this subchapter for inner packaging may be increased to 5 L (1.3 gallons). B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks. IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP8 - A portable tank having a minimum test pressure of 1.5 bar (150 kPa) may be used when the flash point of the hazardous material transported is greater than 0 C (32F).
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 173
DOT Packaging Bulk (49 CFR 173.xxx)	: 242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 5L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 60L
DOT Vessel Stowage Location	: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

### Additional information

Emergency Response Guide (ERG) Number	: 128
Other information	: No supplementary information available.
Special transport precautions	: Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.
State during transport (ADR-RID)	: as liquid.

### ADR

Transport document description	: UN 1133, 3, II, (D/E)
Packing group (ADR)	: II
Class (ADR)	: 3 - Flammable liquid
Hazard identification number (Kemler No.)	: 33
Classification code (ADR)	: F1
Danger labels (ADR)	: 3 - Flammable liquids



Orange plates	:  
---------------	--

Tunnel restriction code (ADR)	: D/E
LQ	: 5L

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Excepted quantities (ADR) : E2

### Transport by sea

UN-No. (IMDG) : 1133  
Proper Shipping Name (IMDG) : Adhesives  
Class (IMDG) : 3 - Flammable liquids  
Packing group (IMDG) : II - substances presenting medium danger  
Limited quantities (IMDG) : 5L  
EmS-No. (1) : F-E  
EmS-No. (2) : S-D

### Air transport

UN-No (IATA) : 1133  
Proper Shipping Name (IATA) : Adhesives  
Class (IATA) : 3 - Flammable Liquids  
Packing group (IATA) : II - Medium Danger  
Instruction "cargo" (ICAO) : 364  
Instruction "passenger" (ICAO) : 353  
Instruction "passenger" - Limited quantities (ICAO) : Y341

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

Associated Technologies AT-4020 Activator	
EPA TSCA Regulatory Flag	All components of this product are listed on the TSCA Inventory of Chemical Substances or are exempt from listing.
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Fire hazard Immediate (acute) health hazard Reactive hazard

### methylmethacrylate, monomer, inhibited (80-62-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	All components of this product are listed on the TSCA Inventory of Chemical Substances or are exempt from listing.
RQ (Reportable quantity, section 304 of EPA's List of Lists) :	None
SARA Section 302 Threshold Planning Quantity (TPQ)	None
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Reactive hazard
SARA Section 313 - Emission Reporting	100 %

### 15.2. International regulations

#### CANADA

Extreme AT-4020 Activator	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

### methylmethacrylate, monomer, inhibited (80-62-6)

Listed on the Canadian DSL (Domestic Substances List) inventory.	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

### EU-Regulations

No additional information available

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 : H225  
Skin Irrit. 2 : H315  
Skin Sens. 1 : H317  
Muta. 1B : H340  
Carc. 1B : H350  
STOT SE 3 : H335  
Aquatic Chronic 3 : H412

# Associated Technologies AT- 4020 Activator

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-phrases: see section 16

### Classification according to Directive 67/548/EEC or 1999/45/EC

#### 15.2.2. National regulations

##### Extreme AT-4020 Activator

Components of this product are listed or exempt from listing on the Canadian Domestic Substance List.

#### 15.3. US State regulations

##### Associated Technologies AT-4020 Activator

State or local regulations	This product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.
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##### titanium(IV) oxide (13463-67-7)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes				

##### titanium(IV) oxide (13463-67-7)

This product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

## SECTION 16: Other information

Full text of H-phrases: see section 16:

Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Carc. 2	Carcinogenicity Category 2
Flam. Liq. 2	Flammable liquids Category 2
H225	Highly flammable liquid and vapor
H351	Suspected of causing cancer
H402	Harmful to aquatic life

NFPA health hazard

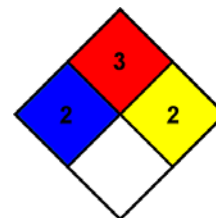
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard

: 3 - Liquids and solids that can be ignited under almost all ambient conditions.

NFPA reactivity

: 2 - Normally unstable and readily undergo violent decomposition but do not detonate. Also: may react violently with water or may form potentially explosive mixtures with water.



#### HMIS III Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 3 Serious Hazard

Physical : 2 Moderate Hazard

Personal Protection : X

SDS US (GHS HazCom 2012)

**DISCLAIMER:** The information contained in this data sheet is empirical or based on laboratory testing and is not intended for design purposes. Associated Technologies makes no representations or warranties of any kind concerning these data. Associated Technologies assumes no responsibility or liability for results obtained by the end-user where Associated Technologies has no control over variables of storage, substrates, surface preparation, temperature, handling and application. End-users are solely responsible for making their own tests and evaluation of this product prior to use in their manufacturing process to determine if this product is suitable for the application.

#### Associated Technologies

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