Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 12/16/2015 Version: 1.0

SECTION 1: Identification of the s	ubstance/mixture and of the company/undertaking
1.1. Product identifier	
Product form	: Mixture
Product name.	: 5310W Activator
Product code	: 5310W Activator
Formula	: 70033A
1.2. Relevant identified uses of the su	ubstance or mixture and uses advised against
Use of the substance/mixture	: Adhesive: component
1.3. Details of the supplier of the safe	ety data sheet
Advanced Adhesive Systems, Inc. 681 North Mountain Road Newington CT 06111	
860-953-4100	
1.4. Emergency telephone number	
Emergency number	: 1-800-255-3924 INTERNATIONAL: 001-813-248-0585 Chem-Tel (available 24 hours/day)
<b>SECTION 2: Hazards identification</b>	n
2.1. Classification of the substance of	r mixture
GHS-US classification	
Flam. Liq. 2	H225
Carc. 2	H351 H402
Aquatic Acute 3	H4U2
Full text of H-phrases: see section 16	
2.2. Label elements	
GHS-US labelling	
Hazard pictograms (GHS-US)	
	GHS02 GHS08
Signal word (GHS-US)	: Danger.
Hazard statements (GHS-US)	: H225 - Highly flammable liquid and vapour
	H351 - Suspected of causing cancer
	H402 - Harmful to aquatic life
Precautionary statements (GHS-US)	: P262 - Do not get in eyes, on skin, or on clothing
	P261 - Avoid breathing vapours 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
	P304 + P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing P314 - Get medical advice/attention if you feel unwell
	P370+P378 - In case of fire: Use Use dry chemical, CO2, 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 P270 - Do no eat, drink or smoke when using this product
	P271 - Use only outdoors or in a well-ventilated area
	P301 + P330 + P331 - If swallowed: rinse mouth. Do NOT induce vomiting
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P302 - IF ON SKIN: Wash skin with mild soap and water. P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P333+P313 - If skin irritation or rash occurs: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention P363 - Wash contaminated clothing before reuse

### 2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

Not applicable

### **SECTION 3: Composition/information on ingredients**

## 3.1. Substances

Not applicable

3.2. Mixture			
Name	Product identifier	%	GHS-US classification
methylmethacrylate, monomer, inhibited	(CAS No) 80-62-6	60 - 85	Flam. Liq. 2, H225
SS - 40		25 - 60	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Acute 3, H402
titanium(IV) oxide	(CAS No) 13463-67-7	5 - 10	Carc. 2, H351
solvent naphtha(petroleum), medium aliph.	(CAS No) 64742-88-7	< 5	Asp. Tox. 1, H304
solvent naphtha (petroleum), light aromatic	(CAS No) 64742-95-6	0.0002 - 0.0005	Flam. Liq. 2, H225 Muta. 1B, H340 Carc. 1B, H350 Asp. Tox. 1. H304

### Full text of H-phrases: see section 16

SECTION 4: First aid measures		
4.1. Description of 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	s, b	oth 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.

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 (CO2), dry chemical powder, foam.
Unsuitable extinguishing media	: Solid water jet ineffective as extinguishing medium.
5.2. Special hazards arising from the sub	stance or mixture
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.

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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	<ul> <li>Firefighters should wear positive pressure self contained breating apparatus (SCBA) and full turnout gear. Do not enter fire area without proper protective equipment, including respiratory protection.</li> </ul>
Other information	: Hazardous combustion products: . carbon oxides (CO and CO2). Nitrogen oxides.
SECTION 6: Accidental release	e measures
6.1. Personal precautions, protections	ctive equipment and emergency procedures
General measures	<ul> <li>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.</li> </ul>
6.1.1. For non-emergency personn	
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. Preve	nt entry to sewers and public waters. Try to stop release.
6.3. Methods and material for co	ntainment 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 materia and its container must be disposed of in a safe way, and as per local legislation.
6.4. Reference to other sections	
See also sections 8 and 13.	
SECTION 7: Handling and stor	age
7.1. Precautions for safe handlin	g
Precautions for safe handling	<ul> <li>Do not handle until all safety precautions have been read and understood. Do no eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing.</li> </ul>
Hygiene measures	<ul> <li>Do no 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.</li> </ul>
7.2. Conditions for safe storage,	including any incompatibilities
Fechnical 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.
ncompatible products	: amines. Oxidizing agent. Reducing agents. strong acids. Strong bases.
ncompatible 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	<ul> <li>KEEP SUBSTANCE AWAY FROM: oxidizing agents. reducing agents. moisture. (strong) acids. (strong) bases, amines.</li> </ul>

Storage area

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### 7.3. Specific end use(s)

### Adhesive: component.

SECTION 8: Exposure controls/personal protection		
8.1. Control parameters		
Not applicable		
Not applicable		
er, inhibited (80-62-6)		
ACGIH TWA (ppm)	50 ppm	
ACGIH STEL (ppm)	50 ppm	
Not applicable		
medium aliph. (64742-88-7)		
Not applicable		
Not applicable		
Not applicable		
Not applicable		
7)		
ACGIH TWA (mg/m³)	10 mg/m <sup>3</sup>	
Not applicable		
solvent naphtha (petroleum), light aromatic (64742-95-6)		
Not applicable		
Not applicable		
	Not applicable         Not applicable         er, inhibited (80-62-6)         ACGIH TWA (ppm)         ACGIH STEL (ppm)         Not applicable         medium aliph. (64742-88-7)         Not applicable         Not applicable	

### 8.2. Exposure controls

- Appropriate engineering controls
- : Provide adequate general and local exhaust ventilation.
- 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		
9.1. Information on basic physical and chemical properties		
Physical state	: Liquid	
Appearance	: Paste.	
Colour	: white	
Odour	: Acrylic	
Odour threshold	: No data available	
рН	: No data available	
Relative evaporation rate (butylacetate=1)	: No data available	
Melting point	: No data available	
Freezing point	: No data available	

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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
Vapour pressure	: 29 mm Hg @20C
Relative vapour density at 20 °C	: >1
Relative density	: 0.97
Solubility	: Insoluble in water.
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
Oxidising 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

Refer to section 10.1 on Reactivity.         10.4. Conditions to avoid         Direct sunlight. Keep away from heat/sparks/open flames/hot surfaces. – No smoking.         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 10: Stability and reactivity
<ul> <li>10.2. Chemical stability</li> <li>Stable under normal conditions.</li> <li>10.3. Possibility of hazardous reactions</li> <li>Refer to section 10.1 on Reactivity.</li> <li>10.4. Conditions to avoid</li> <li>Direct sunlight. Keep away from heat/sparks/open flames/hot surfaces. – No smoking.</li> <li>10.5. Incompatible materials</li> <li>Refer to Section 10.1.</li> <li>10.6. Hazardous decomposition products</li> <li>Carbon dioxide. Carbon monoxide. Oxides of Nitrogen. hydrocarbons. Hydrogen Fluoride. Isocyanate containing vapors. Hydrogen Cyanide.</li> <li>SECTION 11: Toxicological information</li> </ul>	10.1. Reactivity
Stable under normal conditions. <b>10.3.</b> Possibility of hazardous reactions         Refer to section 10.1 on Reactivity. <b>10.4.</b> Conditions to avoid         Direct sunlight. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. <b>10.5.</b> Incompatible materials         Refer to Section 10.1. <b>10.6.</b> Hazardous decomposition products         Carbon dioxide. Carbon monoxide. Oxides of Nitrogen. hydrocarbons. Hydrogen Fluoride. Isocyanate containing vapors. Hydrogen Cyanide.         SECTION 11: Toxicological information	Amines. Alkalis. Moisture. Oxidizers. Reducing agents. Strong acids, bases. Ultraviolet radiation.
<ul> <li>10.3. Possibility of hazardous reactions</li> <li>Refer to section 10.1 on Reactivity.</li> <li>10.4. Conditions to avoid</li> <li>Direct sunlight. Keep away from heat/sparks/open flames/hot surfaces. – No smoking.</li> <li>10.5. Incompatible materials</li> <li>Refer to Section 10.1.</li> <li>10.6. Hazardous decomposition products</li> <li>Carbon dioxide. Carbon monoxide. Oxides of Nitrogen. hydrocarbons. Hydrogen Fluoride. Isocyanate containing vapors. Hydrogen Cyanide.</li> <li>SECTION 11: Toxicological information</li> </ul>	10.2. Chemical stability
Refer to section 10.1 on Reactivity.         10.4. Conditions to avoid         Direct sunlight. Keep away from heat/sparks/open flames/hot surfaces. – No smoking.         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	Stable under normal conditions.
10.4. Conditions to avoid         Direct sunlight. Keep away from heat/sparks/open flames/hot surfaces. – No smoking.         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	10.3. Possibility of hazardous reactions
Direct sunlight. Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  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	· ·
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	10.4. Conditions to avoid
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	
10.6.       Hazardous decomposition products         Carbon dioxide. Carbon monoxide. Oxides of Nitrogen. hydrocarbons. Hydrogen Fluoride. Isocyanate containing vapors. Hydrogen Cyanide.         SECTION 11: Toxicological information	10.5. Incompatible materials
Carbon dioxide. Carbon monoxide. Oxides of Nitrogen. hydrocarbons. Hydrogen Fluoride. Isocyanate containing vapors. Hydrogen Cyanide. SECTION 11: Toxicological information	
SECTION 11: Toxicological information	10.6. Hazardous decomposition products
	Carbon dioxide. Carbon monoxide. Oxides of Nitrogen. hydrocarbons. Hydrogen Fluoride. Isocyanate containing vapors. Hydrogen Cyanide.
11.1. Information on toxicological effects	SECTION 11: Toxicological information
	11.1. Information on toxicological effects

Acute toxicity

: Not classified

methylmethacrylate, monomer, inhibited (80-62-6)		
LD50 oral rat	> 6000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 7900 mg/kg bodyweight; Rat; Equivalent or similar to OECD 401; Weight of evidence; 8400 mg/kg bodyweight; Rat; Weight of evidence)	
LD50 dermal rabbit	> 7550 mg/kg (Rabbit; Literature study; Equivalent or similar to OECD 402; >5000 mg/kg bodyweight; Rabbit; Experimental value)	
LC50 inhalation rat (mg/l)	27.5 mg/l/4h (Rat; Literature study)	
ATE US (vapours)	27.500 mg/l/4h	
ATE US (dust,mist)	27.500 mg/l/4h	
solvent naphtha(petroleum), medium aliph. (64742-88-7)		
LD50 oral rat	> 5000 mg/kg bodyweight (Rat; Equivalent or similar to OECD 420; Experimental value)	
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Rabbit; Experimental value; Equivalent or similar to OECD 402)	
titanium(IV) oxide (13463-67-7)		
LD50 oral rat	> 10000 mg/kg (Rat; OECD 425: Acute Oral Toxicity: Up-and-Down Procedure; Experimental value; > 5000 mg/kg bodyweight; Rat; Experimental value)	
LD50 dermal rabbit	> 10000 mg/kg (Rabbit; Experimental value)	
LC50 inhalation rat (mg/l)	> 6.8 mg/l/4h (Rat; Experimental value)	

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according to redefail Register / vol. 11, No. 50 / Monday, March 20, 2012 / Rules and Regulations		
Skin corrosion/irritation	: Not classified	
Serious eye damage/irritation	: Not classified	
Respiratory or skin sensitisation	: Not classified	
Germ cell mutagenicity	: Not classified	
Carcinogenicity	: Suspected of causing cancer.	
methylmethacrylate, monomer, inhibited (80-	62-6)	
IARC group	3 - Not Classifiable	
titanium(IV) oxide (13463-67-7)		
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	: Not classified	
exposure)		
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 eve irritation. Lacrimation. Redness of the eve 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			
methylmethacrylate, monomer, inhibited (80-62-6)			
LC50 fishes 1	125.5 - 275 mg/l		
EC50 Daphnia 1	720 mg/l (48 h; Daphnia magna; GLP)		
ErC50 (algae)	170 mg/l		
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)		
solvent naphtha(petroleum), medium aliph.	(64742-88-7)		
Threshold limit algae 1	1 - 3,72 h; Pseudokirchneriella subcapitata; Cell numbers		
titanium(IV) oxide (13463-67-7)			
LC50 fishes 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)		

### Persistence and degradability 12.2.

methylmethacrylate, monomer, inhibited (80-62-6)		
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 <sup>2</sup> /g substance	
ThOD 1.9 g O <sup>2</sup> /g substance		
BOD (% of ThOD)	0.073 % ThOD	
solvent naphtha(petroleum), medium aliph. (64742-88-7)		
Persistence and degradability	Readily biodegradable in water. Adsorbs into the soil.	
titanium(IV) oxide (13463-67-7)		
Persistence and degradability	Biodegradability: not applicable. Low potential for mobility in soil.	
Biochemical oxygen demand (BOD)	Not applicable	
Chemical oyxgen demand (COD)	Not applicable	
ThOD	Not applicable	

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BOD (% of ThOD)	Not applicable
2.3. Bioaccumulative potential	
methylmethacrylate, monomer, inhibited (80	0.62.6)
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)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
solvent naphtha(petroleum), medium aliph. Bioaccumulative potential	(64742-88-7) No bioaccumulation data available.
titanium(IV) oxide (13463-67-7) Bioaccumulative potential	Not bioaccumulative.
solvent naphtha (petroleum), light aromatic	
Log Pow	2.1 - 6
12.4. Mobility in soil	
methylmethacrylate, monomer, inhibited (80	0.028 N/m (20 °C)
Surface tension	0.028 N/III (20 C)
12.5. Other adverse effects	
Effect on ozone layer	:
Effect on the global warming	: No known ecological damage caused by this product.
-	· ·
SECTION 13: Disposal consideration	ne
3.1. Waste treatment methods	. Dispacel must be done according to official regulations
Regional legislation (waste)	: Disposal must be done according to official regulations.
Vaste 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 vapours are flammable.
Ecology - waste materials	: Avoid release to the environment.
SECTION 14: Transport information	
n accordance with DOT	
DOT Proper Shipping Name	: Adhesives
Department of Transportation (DOT) Hazard	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Classes	
Hazard labels (DOT)	: 3 - Flammable liquid
Hazard labels (DOT)	: 3 - Flammable liquid
Hazard labels (DOT)	
Hazard labels (DOT)	
Hazard labels (DOT)	3 - Flammable liquid
	: 3 - Flammable liquid . II - Medium Danger
<sup>D</sup> acking group (DOT)	<ul> <li>II - Medium Danger</li> <li>149 - When transported as a limited quantity or a consumer commodity, the maximum net</li> </ul>
<sup>D</sup> acking group (DOT)	<ul> <li>II - Medium Danger</li> <li>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 packagings may be increased</li> </ul>
Packing group (DOT)	<ul> <li>II - Medium Danger</li> <li>149 - When transported as a limited quantity or a consumer commodity, the maximum net</li> </ul>
Packing group (DOT)	<ul> <li>II - Medium Danger</li> <li>II - Medium Danger</li> <li>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 packagings may be increased to 5 L (1.3 gallons).</li> <li>B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.</li> </ul>
Packing group (DOT)	<ul> <li>II - Medium Danger</li> <li>I49 - 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 packagings may be increased to 5 L (1.3 gallons).</li> <li>B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.</li> <li>IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Compositi</li> </ul>
<sup>D</sup> acking group (DOT)	<ul> <li>II - Medium Danger</li> <li>II - Medium Danger</li> <li>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 packagings may be increased to 5 L (1.3 gallons).</li> <li>B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.</li> <li>IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Compositi (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to</li> </ul>
<sup>D</sup> acking group (DOT)	<ul> <li>II - Medium Danger</li> <li>I49 - 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 packagings may be increased to 5 L (1.3 gallons).</li> <li>B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.</li> <li>IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Compositi</li> </ul>
Packing group (DOT)	<ul> <li>II - Medium Danger</li> <li>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 packagings may be increased to 5 L (1.3 gallons).</li> <li>B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.</li> <li>IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Compositi (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</li></ul>
Hazard labels (DOT) Packing group (DOT) DOT Special Provisions (49 CFR 172.102)	<ul> <li>II - Medium Danger</li> <li>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 packagings may be increased to 5 L (1.3 gallons).</li> <li>B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.</li> <li>IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composit (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.</li> <li>T4 - 2.65 178.274(d)(2) Normal</li></ul>
Packing group (DOT)	<ul> <li>II - Medium Danger</li> <li>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 packagings may be increased to 5 L (1.3 gallons).</li> <li>B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.</li> <li>IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Compositi (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.</li> <li>T4 - 2.65 178.274(d)(2) Normal</li></ul>
<sup>D</sup> acking group (DOT)	<ul> <li>II - Medium Danger</li> <li>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 packagings may be increased to 5 L (1.3 gallons).</li> <li>B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.</li> <li>IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composit (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.</li> <li>T4 - 2.65 178.274(d)(2) Normal</li></ul>
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<sup>D</sup> acking group (DOT)	<ul> <li>II - Medium Danger</li> <li>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 packagings may be increased to 5 L (1.3 gallons).</li> <li>B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.</li> <li>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</li></ul>

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

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations				
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 ADHESIVES, 3, II, (D/E)		
Packing group (ADR)	:	II		
Class (ADR)	:	3 - Flammable liquid		
Hazard identification number (Kemler No.)	:	33		
Classification code (ADR) Danger labels (ADR)	:	F1 3 - Flammable liquids		
Orange plates				
Grange plates	•	33 1133		
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		
Limited quantities (IMDG)	:	5L		
EmS-No. (1)	:	F-E		
EmS-No. (2)	:	S-D		
Air transport				
UN-No.(IATA)	:	1133 A theorem		
Proper Shipping Name (IATA)	:	Adhesives		
Class (IATA)	:	3 - Flammable Liquids		
Packing group (IATA)	:	II - Medium Danger		
Instruction "cargo" (ICAO)	:	364 353		
Instruction "passenger" (ICAO) Instruction "passenger" - Limited quantities	•	353 Y341		
(ICAO)	•			

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SECTION 15: Regulatory information		
15.1. US Federal regulations		
5310W 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 (80-6	62-6)	
Listed on the United States TSCA (Toxic Substar	nces 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 None Quantity (TPQ)		
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	
5310W Activator	
WHMIS Classification	Class B Division 2 - Flammable Liquid
	Class D Division 2 Subdivision B - Toxic material causing other toxic effects

methylmethacr	ylate, monomer,	inhibited	(80-62-6)	1
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Listed on the Canadian DSL (Domestic Sustances List) inventory.			
WHMIS Classification Class B Division 2 - Flammable Liquid		Class B Division 2 - Flammable Liquid	
Class D Division 2 Subdivision B - Toxic material causing othe		Class D Division 2 Subdivision B - Toxic material causing other toxic effects	

11005

EU-Regulations No additional information available

Classification according to Regul	ation (EC) No. 1272/2008 [CLP]
Flom Lin 2	

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
Full text of H-phrases: see section 16	

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

15.2.2.	National regulations	
5310W	Activator	

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

15.3. US State regulations	
5310W Activator()	
State or local regulations	This product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

titanium(IV) oxide (13463-67-7)				
U.S California -	U.S California -	U.S California -	U.S California -	No significance risk level
Proposition 65 -	Proposition 65 -	Proposition 65 -	Proposition 65 -	(NSRL)
Carcinogens List	Developmental Toxicity	Reproductive Toxicity -	Reproductive Toxicity -	
_		Female	Male	
Yes	No	No	No	
40/40/0045		P 1 X		0/4.0

## Safety Data Sheet

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### 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**

<ul> <li>incapacitation or possible residual injury unless prompt medical attention is given.</li> <li>3 - Liquids and solids that can be ignited under almost all ambient conditions.</li> <li>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.</li> <li>MIS III Rating ealth</li> <li>2 Moderate Hazard - Temporary or minor injury may occur</li> <li>3 Serious Hazard</li> </ul>	Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Carc. 2       Carcinogenicity Category 2         Flam. Liq. 2       Flammable liquids Category 2         Muta. 1B       Germ cell mutagenicity Category 1B         H225       Highly flammable liquid and vapour         H304       May be fatal if swallowed and enters airways         H340       May cause genetic defects         H351       Suspected of causing cancer         H402       Harmful to aquatic life         PA health hazard       : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.         FPA fire hazard       : 3 - Liquids and solids that can be ignited under almost all ambient conditions.         FPA 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.         MIS III Rating waith       : 2 Moderate Hazard - Temporary or minor injury may occur ammability	Asp. Tox. 1	Aspiration hazard Category 1
Flam. Liq. 2       Flammable liquids Category 2         Muta. 1B       Germ cell mutagenicity Category 1B         H225       Highly flammable liquid and vapour         H304       May be fatal if swallowed and enters airways         H340       May cause genetic defects         H350       May cause cancer         H351       Suspected of causing cancer         H402       Harmful to aquatic life         TPA health hazard       : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.         TPA fire hazard       : 3 - Liquids and solids that can be ignited under almost all ambient conditions.         TPA 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.         MIS III Rating eatth       : 2 Moderate Hazard - Temporary or minor injury may occur ammability	Carc. 1B	Carcinogenicity Category 1B
Muta. 1B       Germ cell mutagenicity Category 1B         H225       Highly flammable liquid and vapour         H304       May be fatal if swallowed and enters airways         H304       May cause genetic defects         H350       May cause cancer         H351       Suspected of causing cancer         H402       Harmful to aquatic life         FPA health hazard       : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.         FPA fire hazard       : 3 - Liquids and solids that can be ignited under almost all ambient conditions.         FPA 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.         MIS III Rating eatth       : 2 Moderate Hazard - Temporary or minor injury may occur ammability	Carc. 2	Carcinogenicity Category 2
H225       Highly flammable liquid and vapour         H304       May be fatal if swallowed and enters airways         H304       May cause genetic defects         H340       May cause genetic defects         H350       May cause genetic defects         H351       Suspected of causing cancer         H402       Harmful to aquatic life         EPA health hazard       : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.         FPA fire hazard       : 3 - Liquids and solids that can be ignited under almost all ambient conditions.         EPA 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.         MIS III Rating eatth       : 2 Moderate Hazard - Temporary or minor injury may occur ammability	Flam. Liq. 2	Flammable liquids Category 2
H304       May be fatal if swallowed and enters airways         H340       May cause genetic defects         H350       May cause cancer         H351       Suspected of causing cancer         H402       Harmful to aquatic life         FPA health hazard       : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.         FPA fire hazard       : 3 - Liquids and solids that can be ignited under almost all ambient conditions.         FPA 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.         MIS III Rating ealth       : 2 Moderate Hazard - Temporary or minor injury may occur ammability	Muta. 1B	Germ cell mutagenicity Category 1B
H340       May cause genetic defects         H350       May cause cancer         H351       Suspected of causing cancer         H402       Harmful to aquatic life         FPA health hazard       : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.         FPA fire hazard       : 3 - Liquids and solids that can be ignited under almost all ambient conditions.         FPA 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.         MIS III Rating ealth       : 2 Moderate Hazard - Temporary or minor injury may occur ammability	H225	Highly flammable liquid and vapour
H350       May cause cancer         H351       Suspected of causing cancer         H402       Harmful to aquatic life         EPA health hazard       : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.         EPA fire hazard       : 3 - Liquids and solids that can be ignited under almost all ambient conditions.         EPA 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.         WIS III Rating ealth       : 2 Moderate Hazard - Temporary or minor injury may occur         ammability       : 3 Serious Hazard	H304	May be fatal if swallowed and enters airways
H351       Suspected of causing cancer         H402       Harmful to aquatic life         EPA health hazard       : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.         EPA fire hazard       : 3 - Liquids and solids that can be ignited under almost all ambient conditions.         EPA 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.         MIS III Rating ealth       : 2 Moderate Hazard - Temporary or minor injury may occur ammability	H340	May cause genetic defects
H402       Harmful to aquatic life         FPA health hazard       : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.         FPA fire hazard       : 3 - Liquids and solids that can be ignited under almost all ambient conditions.         FPA 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.         MIS III Rating ealth       : 2 Moderate Hazard - Temporary or minor injury may occur         iammability       : 3 Serious Hazard	H350	May cause cancer
<ul> <li>FPA health hazard</li> <li>2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.</li> <li>FPA fire hazard</li> <li>3 - Liquids and solids that can be ignited under almost all ambient conditions.</li> <li>FPA reactivity</li> <li>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.</li> <li>MIS III Rating ealth</li> <li>2 Moderate Hazard - Temporary or minor injury may occur ammability</li> <li>2 Moderate Hazard</li> </ul>	H351	Suspected of causing cancer
<ul> <li>FPA fire hazard</li> <li>FPA fire hazard</li> <li>3 - Liquids and solids that can be ignited under almost all ambient conditions.</li> <li>FPA reactivity</li> <li>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.</li> <li>MIS III Rating ealth</li> <li>2 Moderate Hazard - Temporary or minor injury may occur</li> <li>3 Serious Hazard</li> </ul>	H402	Harmful to aquatic life
ambient conditions.         IFPA 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.         IMIS III Rating lealth         : 2 Moderate Hazard - Temporary or minor injury may occur is 3 Serious Hazard	EPA fire bazard	medical attention is given.
decomposition but do not detonate. Also: may react violently with water or may form potentially explosive mixtures with water.         MIS III Rating ealth       : 2 Moderate Hazard - Temporary or minor injury may occur ammability         : 3 Serious Hazard	FPA fire hazard	
lammability : 3 Serious Hazard	IFPA reactivity	decomposition but do not detonate. Also: may react violently with water or may form potentially explosive
lammability : 3 Serious Hazard	MIS III Rating	
	ealth	: 2 Moderate Hazard - Temporary or minor injury may occur
nysical : 2 Moderate Hazard	ammability	: 3 Serious Hazard
,	rvsical	: 2 Moderate Hazard
ersonal Protection : X		

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