

Issue Date 28-Jun-2016

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Version 1

**1. IDENTIFICATION**

**Product identifier**

**Product Name** Grenade Igniter Case Sealant 47422

**Other means of identification**

**Product Code** MS-47422  
**UN/ID no.** None  
**Synonyms** None

**Recommended use of the chemical and restrictions on use**

**Recommended Use** UV Anaerobic Adhesive.  
**Uses advised against** None known

**Details of the supplier of the safety data sheet**

**Manufacturer Address**  
Hernon Manufacturing Inc.  
121 Tech Drive  
Sanford, FL 32771  
800-527-0004

**Emergency telephone number**

**Company Phone Number** 407-322-4000  
**Emergency Telephone** Chemtel 800-255-3924

**2. HAZARDS IDENTIFICATION**

**Classification**

**OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Dermal	Category 4
Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2
Flammable liquids	Category 4

**Label elements**

**Emergency Overview**

**Danger**

**Hazard statements**

Harmful in contact with skin  
Causes severe skin burns and eye damage  
May cause an allergic skin reaction  
Suspected of damaging fertility or the unborn child  
May cause damage to organs through prolonged or repeated exposure  
Combustible liquid

**Appearance** No information available**Physical state** Liquid**Odor** Sharp**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Wash face, hands and any exposed skin thoroughly after handling  
 Contaminated work clothing should not be allowed out of the workplace  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking

**Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor/physician  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a POISON CENTER or doctor/physician  
 Call a POISON CENTER or doctor/physician if you feel unwell  
 Wash contaminated clothing before reuse  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 If skin irritation or rash occurs: Get medical advice/attention  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Immediately call a POISON CENTER or doctor/physician  
 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting  
 In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction

**Precautionary Statements - Storage**

Store locked up  
 Store in a well-ventilated place. Keep cool

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other Information**

May be harmful if swallowed Very toxic to aquatic life with long lasting effects Very toxic to aquatic life

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance**

Chemical Name	CAS No.	Weight-%	Trade Secret
TRIETHYLENE GLYCOL DIMETHACRYLATE	109-16-0	60 - 100	*
TRIMETHYLOLPROPANE TRIACRYLATE	15625-89-5	5 - 10	*
ACRYLIC ACID	79-10-7	3 - 7	*
CUMENE HYDROPEROXIDE	80-15-9	1 - 5	*
PHOTOINITIATOR	162881-26-7	0.1 - 1	*
PHOTOINITIATOR	75980-60-8	0.1 - 1	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

#### 4. FIRST AID MEASURES

##### Description of first aid measures

<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash with soap and water. Flush skin with water for several minutes. Remove contaminated clothing and shoes. If irritation develops, seek medical attention. Wash clothing before reuse.
<b>Inhalation</b>	Remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention immediately.
<b>Ingestion</b>	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a POISON CENTER or doctor/physician if you feel unwell.

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

**Symptoms** No information available.

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

**Note to physicians** Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

##### Suitable extinguishing media

Use CO<sub>2</sub>, dry chemical, or foam.

**Unsuitable extinguishing media** No information available.

##### Specific hazards arising from the chemical

No information available.

**Hazardous combustion products** Irritating organic vapors.

##### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

##### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### 6. ACCIDENTAL RELEASE MEASURES

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

<b>Personal precautions</b>	Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.

##### Environmental precautions

**Environmental precautions** Do not allow into any sewer, on the ground or into any body of water. Collect spillage. See section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Soak up with inert absorbent material. Store in a closed container until ready for disposal.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling** Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists. Wash thoroughly after handling. Ensure adequate ventilation, especially in confined areas.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep at temperatures between 46°F and 82°F (8°C and 28°C).

**Incompatible materials** Strong oxidizer. Peroxides. Copper. Iron. Rust. Strong bases.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters****Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
ACRYLIC ACID 79-10-7	TWA: 2 ppm S*	(vacated) TWA: 10 ppm (vacated) TWA: 30 mg/m <sup>3</sup> (vacated) S*	TWA: 2 ppm TWA: 6 mg/m <sup>3</sup>

**Appropriate engineering controls**

**Engineering Controls** Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Skin and body protection** Wear protective gloves and protective clothing. Use rubber or plastic gloves.

**Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid	<b>Odor</b>	Sharp
<b>Appearance</b>	No information available	<b>Odor threshold</b>	No information available
<b>Color</b>	Red		

**Property**

<b>pH</b>	<b>Values</b>	<b>Remarks • Method</b>
<b>Melting point / freezing point</b>	Does not apply	
<b>Boiling point / boiling range</b>	No information available	
	> 149 °C / 300 °F	

Flash point	> 93 °C / 200 °F
Evaporation rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	
Upper flammability limit:	8.0% Acrylic Acid
Lower flammability limit:	2.0% Acrylic Acid
Vapor pressure	< 5 mm @80 °F
Vapor density	No information available
Relative density	1.06
Water solubility	Slightly soluble
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

**Other Information**

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

## 10. STABILITY AND REACTIVITY

**Reactivity**

No data available

**Chemical stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to avoid**

Incompatible materials.

**Incompatible materials**

Strong oxidizer. Peroxides. Copper. Iron. Rust. Strong bases.

**Hazardous Decomposition Products**

None known.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

Inhalation	No data available.
Eye contact	No data available.
Skin contact	No data available.
Ingestion	No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
TRIETHYLENE GLYCOL	= 10837 mg/kg ( Rat )	-	-

DIMETHACRYLITE 109-16-0			
TRIMETHYLOLPROPANE TRIACRYLATE 15625-89-5	= 5190 µL/kg ( Rat ) = 5190 mg/kg ( Rat )	= 5000 mg/kg ( Rabbit )	-
ACRYLIC ACID 79-10-7	= 193 mg/kg ( Rat ) = 33500 µg/kg ( Rat )	= 295 mg/kg ( Rabbit ) = 280 µL/kg ( Rabbit )	= 3.6 mg/L ( Rat ) 4 h = 11.1 mg/L ( Rat ) 1 h
CUMENE HYDROPEROXIDE 80-15-9	= 382 mg/kg ( Rat )	= 0.126 mL/kg ( Rabbit )	= 220 ppm ( Rat ) 4 h
PHOTOINITIATOR 162881-26-7	> 2000 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** No information available.

**Germ cell mutagenicity** No information available.

No information available.

**Carcinogenicity**

Chemical Name	ACGIH	IARC	NTP	OSHA
TRIMETHYLOLPROPANE TRIACRYLATE 15625-89-5	-	Group 2B	-	X
ACRYLIC ACID 79-10-7	-	Group 3	-	-

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document .

**ATEmix (oral)** 4,048.00 mg/kg

**ATEmix (dermal)** 1,991.00 mg/kg mg/l

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Very toxic to aquatic life with long lasting effects

Chemical Name	Algae/aquatic plants	Fish	Crustacea
TRIETHYLENE GLYCOL DIMETHACRYLITE 109-16-0	-	16.4: 96 h Danio rerio mg/L LC50 semi-static	-
ACRYLIC ACID 79-10-7	0.17: 96 h Pseudokirchneriella subcapitata mg/L EC50 0.04: 72 h Desmodesmus subspicatus mg/L EC50	222: 96 h Brachydanio rerio mg/L LC50 semi-static	270: 24 h Daphnia magna mg/L LC50 Static 95: 48 h Daphnia magna mg/L EC50
CUMENE HYDROPEROXIDE 80-15-9	-	3.9: 96 h Oncorhynchus mykiss mg/L LC50 static	7: 24 h Daphnia magna mg/L EC50
PHOTOINITIATOR 162881-26-7	-	90: 96 h Danio rerio µg/L LC50 semi-static	-

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

Chemical Name	Partition coefficient
ACRYLIC ACID 79-10-7	0.46

**Other adverse effects** No information available

### 13. DISPOSAL CONSIDERATIONS

#### Waste treatment methods

**Disposal of wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Do not reuse container.

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
ACRYLIC ACID 79-10-7	-	-	-	U008
CUMENE HYDROPEROXIDE 80-15-9	-	-	-	U096

Chemical Name	California Hazardous Waste Status
CUMENE HYDROPEROXIDE 80-15-9	Toxic Ignitable

### 14. TRANSPORT INFORMATION

**DOT** Not regulated  
**UN/ID no.** None  
**Proper shipping name** Not regulated  
**Hazard Class** None  
**Packing Group** None  
**Special Provisions** None

**IATA** Not regulated  
**UN/ID no.** None  
**Proper shipping name** Not regulated  
**Hazard Class** None  
**Packing Group** None  
**Special Provisions** None

**IMDG** Not regulated  
**UN/ID no.** None  
**Proper shipping name** Not regulated  
**Hazard Class** None  
**Packing Group** None  
**Special Provisions** None

### 15. REGULATORY INFORMATION

#### International Inventories

**TSCA** Complies  
**DSL/NDSL** Complies  
**EINECS/ELINCS** Complies  
**ENCS** Complies  
**IECSC** Complies  
**KECL** Complies

PICCS Complies  
AICS Complies

All ingredients are on the inventory or are exempt from listing.

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
ACRYLIC ACID - 79-10-7	1.0
CUMENE HYDROPEROXIDE - 80-15-9	1.0

**SARA 311/312 Hazard Categories**

Acute health hazard -  
 Chronic Health Hazard -  
 Fire hazard -  
 Sudden release of pressure hazard -  
 Reactive Hazard -

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
ACRYLIC ACID 79-10-7	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
CUMENE HYDROPEROXIDE 80-15-9	10 lb	-	RQ 10 lb final RQ RQ 4.54 kg final RQ

**US State Regulations**

**California Proposition 65**

This product does not contain Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
ACRYLIC ACID 79-10-7	X	X	X
CUMENE HYDROPEROXIDE 80-15-9	X	X	X

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable



**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<u>NFPA</u>	Health hazards -	Flammability -	Instability -	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards -	Flammability -	Physical hazards -	Personal protection -

Prepared By	SDS coordinator
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Revision Note	No information available

**Disclaimer**

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**