MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	**Epcon Acrylic 7**
Version #	01
Revision date	07-05-2016
Product Code	A7
Product use	Concrete anchoring adhesive.
Manufacturer/Supplier	ITW Red Head 2171 Executive Drive, Suite 100 Addison, IL 60101 US Telephone Number: (630) 350-0370 Contact Person: Andrew Rourke
Emergency	CHEMTREC: (800) 424-9300

2. Hazards Identification

Physical state	Liquid.
Appearance	Paste.
Emergency overview	DANGER! Highly flammable. Will be easily ignited by heat, spark or flames. Contains an organic peroxide and strong oxidizer. Contact with other materials may cause fire. Heat may cause containers to explode. Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact. May cause central nervous system effects. Prolonged exposure may cause chronic effects.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Eyes	Irritating to eyes. Contact may cause irritation, redness, tearing, blurred vision and/or burns.
Skin	Irritating to skin. May cause sensitization by skin contact. Contact may cause irritation, redness and/or drying.
Inhalation	Vapors may irritate throat and respiratory system and cause coughing. May cause central nervous system effects.
Ingestion	Irritating to mouth, throat, and stomach. Ingestion may cause vomiting, nausea, diarrhea or other systemic effects.
Target organs	Eyes. Skin. Respiratory system. Central nervous system. Heart and cardiovascular system. Liver. Kidneys. Reproductive system.
Chronic effects	Methyl methacrylate vapor has hypotensive properties which may cause cardiac arrest and other cardiovascular effects. Possible reproductive hazard that may cause adverse reproductive effects based on animal data. May cause damage to the liver and kidneys. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Potential environmental effects	The product contains a substance which is harmful to aquatic organisms.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Methyl methacrylate	80-62-6	10 - 90
Benzoyl peroxide	94-36-0	0.1 - 10
Dibutyl phthalate	84-74-2	0.1 - 5

Composition comments	All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures

Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.
Skin contact	Immediately flush with plenty of water for at least 15 minutes. If skin rash or an allergic skin reaction develops, get medical attention. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Get medical attention, if needed.
Ingestion	Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content does not get into the lungs. Get medical attention immediately.
Notes to physician	Keep victim under observation. In case of shortness of breath, give oxygen. Symptoms may be delayed.
General advice	Take off contaminated clothing and shoes immediately. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use.

5. Fire Fighting Measures

Flammable properties	Flammable by OSHA criteria. Can be ignited easily and burns vigorously. Strong oxidizer. Contact with combustible material may cause fire. Organic peroxide. Heat may cause the containers to explode.
Extinguishing media	
Suitable extinguishing media	Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO_2).
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire. Halogenated materials.
Protection of firefighters	
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Vapors may be ignited by a spark, a hot surface or an ember. Greatly increases the burning rate of combustible materials.
Protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Move containers from fire area if you can do so without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Containers should be cooled with water to prevent vapor pressure build up. Cool containers exposed to flames with water until well after the fire is out. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Some of these materials, if spilled, may evaporate leaving a flammable residue.
Special protective equipment for fire-fighters	Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Specific methods	In the event of fire and/or explosion do not breathe fumes.
Hazardous combustion products	Carbon monoxide. Carbon Dioxide.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. See Section 8 of the MSDS for Personal Protective Equipment.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not contaminate water.
Methods for containment	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas.

Methods for cleaning up

Keep combustibles (wood, paper, oil, etc.) away from spilled material.

Small Spills: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination.

Large Spills: Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal.

This material and its container must be disposed of as hazardous waste. Should not be released into the environment. Prevent product from entering drains.

Other information

Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling

Wear personal protective equipment. Avoid breathing high vapor concentrations. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Take precautionary measures against static discharges. When using, do not eat, drink or smoke.

Storage

Keep away from heat, sparks and open flame. Keep container tightly closed in a cool, well-ventilated place. For maximum shelf life, store between 4.4°C (40°F) to 26.7°C (80°F). Do not store above 43.3°C (110°F). Do not store near combustible materials. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Components	Type	Value
Benzoyl peroxide (94-36-0)	TWA	5 mg/m3
Dibutyl phthalate (84-74-2)	TWA	5 mg/m3
Methyl methacrylate (80-62-6)	STEL	100 ppm
	TWA	50 ppm

U.S. - OSHA

Components	Type	Value
Benzoyl peroxide (94-36-0)	PEL	5 mg/m3
Dibutyl phthalate (84-74-2)	PEL	5 mg/m3
Methyl methacrylate (80-62-6)	PEL	100 ppm
		410 mg/m3

Canada - Alberta

Components	Type	Value
Benzoyl peroxide (94-36-0)	TWA	5 mg/m3
Dibutyl phthalate (84-74-2)	TWA	5 mg/m3
Methyl methacrylate (80-62-6)	STEL	100 ppm
		410 mg/m3
	TWA	205 mg/m3
		50 ppm

Canada - British Columbia

Components	Type	Value
Benzoyl peroxide (94-36-0)	TWA	5 mg/m3
Dibutyl phthalate (84-74-2)	TWA	5 mg/m3
Methyl methacrylate (80-62-6)	STEL	100 ppm
	TWA	50 ppm

Canada - Ontario

Components	Type	Value
Benzoyl peroxide (94-36-0)	TWA	5 mg/m3
Dibutyl phthalate (84-74-2)	TWA	5 mg/m3
Methyl methacrylate (80-62-6)	STEL	100 ppm
	TWA	50 ppm

Canada - Quebec

Components	Type	Value
Benzoyl peroxide (94-36-0)	TWA	5 mg/m3
Dibutyl phthalate (84-74-2)	TWA	5 mg/m3
Methyl methacrylate (80-62-6)	TWA	50 ppm
		205 mg/m3

Mexico

Components	Type	Value
Benzoyl peroxide (94-36-0)	TWA	5 mg/m3
Dibutyl phthalate (84-74-2)	STEL	10 mg/m3
	TWA	5 mg/m3
Methyl methacrylate (80-62-6)	STEL	125 ppm
		510 mg/m3
	TWA	410 mg/m3
		100 ppm

Engineering controls Use explosion-proof ventilation equipment. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Personal protective equipment

Eye / face protection Wear approved safety goggles.

Skin protection Wear chemical-resistant gloves, footwear and protective clothing appropriate for risk of exposure. Contact glove manufacturer for specific information.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

General hygiene considerations Avoid contact with eyes. Avoid contact with skin. Provide eyewash station and safety shower. When using, do not eat, drink or smoke. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance Paste.

Color Beige/Gray.

Odor Pungent.

Odor threshold Not available.

Physical state Liquid.

Form Liquid. Paste.

pH Not available.

Melting point Not available.

Freezing point Not available.

Boiling point > 213 °F (> 100.6 °C)

Flash point 64 °F (17.8 °C)

Evaporation rate Not available.

Flammability Not available.

Flammability limits in air, upper, % by volume 12.5 %

Flammability limits in air, lower, % by volume 2.1 %

Vapor pressure Not available.

Vapor density > 1

Specific gravity 1.6 (25°C)

Solubility (water) Insoluble

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

10. Chemical Stability & Reactivity Information

Chemical stability Material is stable under normal conditions.

Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents. Reducing agents. Strong acids. Combustible material. Polymerization initiators.
Hazardous decomposition products	Thermal decomposition of this product can generate carbon monoxide and carbon dioxide.
Possibility of hazardous reactions	Will not occur at normal temperatures, however, exposure to elevated temperatures may cause hazardous polymerization.

11. Toxicological Information

Toxicological data

Components	**Test Results**
Methyl methacrylate (80-62-6)	Acute Inhalation LC50 Mouse: 18.5 mg/l 2 Hours
	Acute Inhalation LC50 Rat: 3750 mg/l 8 Hours
	Acute Oral LD50 Rabbit: 6000 mg/kg
	Acute Oral LD50 Rat: 7800 mg/kg Acute
	Other LD50 Dog: 4500 mg/kg Acute
	Other LD50 Mouse: 1000 mg/kg Acute
	Other LD50 Rat: 1328 mg/kg Acute
Dibutyl phthalate (84-74-2)	Dermal LD50 Rabbit: 4200 mg/kg
	Acute Inhalation LC50 Rat: 15.68 mg/l 4 Hours
	Acute Oral LD50 Rat: 8000 mg/kg
Benzoyl peroxide (94-36-0)	Acute Oral LD50 Rat: 7710 mg/kg
	Acute Other LD50 Mouse: 206 - 242 mg/kg

Local effects	Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.
Sensitization	May cause an allergic skin reaction.

ACGIH Sensitizer

Methyl methacrylate (CAS 80-62-6)	Sensitiser.

Chronic effects	Prolonged exposure may cause chronic effects. May cause damage to the liver and kidneys. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

ACGIH Carcinogens

Benzoyl peroxide (CAS 94-36-0)	A4 Not classifiable as a human carcinogen.
Methyl methacrylate (CAS 80-62-6)	A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Benzoyl peroxide (CAS 94-36-0)	3 Not classifiable as to carcinogenicity to humans.
Methyl methacrylate (CAS 80-62-6)	3 Not classifiable as to carcinogenicity to humans.

Epidemiology	This product is not reported to cause epidemiological effects in humans.
Mutagenicity	This product is not reported to cause mutagenic effects in humans.
Neurological effects	Methyl methacrylate vapor has hypotensive properties which may cause cardiac arrest and other cardiovascular effects.
Reproductive effects	Possible reproductive hazard that may cause adverse reproductive effects based on animal data.
Teratogenicity	Components in this product have been shown to cause teratogenic effects in laboratory animals.

12. Ecological Information

Ecotoxicological data

Components	**Test Results**
Methyl methacrylate (80-62-6)	LC50 Fathead minnow (Pimephales promelas): 125.5 - 190.7 mg/l 96 hours
Dibutyl phthalate (84-74-2)	EC50 Water flea (Daphnia magna): 2.99 mg/l 48 hours
	LC50 Yellow perch (Perca flavescens): 0.28 - 0.44 mg/l 96 hours

Ecotoxicity	Contains a substance which causes risk of hazardous effects to the environment.
Environmental effects	Harmful to aquatic organisms. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Persistence and degradability	Not available.
Bioaccumulation / Accumulation	No data available.
Partition coefficient (n-octanol/water)	Not available.
Mobility in environmental media	No data available.

13. Disposal Considerations

Waste codes	D001: Waste Flammable material with a flash point <140 °F
Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations. This material and its container must be disposed of as hazardous waste. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. If discarded, this product is considered a RCRA ignitable waste, D001. Do not contaminate ponds, waterways or ditches with chemical or used container.

14. Transport Information

Product Specific Note:	This product meets the limited quantities exception requirements for the below listed transportation agencies. Under DOT and TDG regulations, this product may be reclassified as a Consumer Commodity (ORM-D). Please see the specific regulations for the shipping and packaging requirements.

DOT

Basic shipping requirements:

Proper shipping name	Consumer commodity
Hazard class	ORM-D
Subsidiary hazard class	None
Labels required	None

Additional information:

Packaging exceptions	156, 306
Packaging non bulk	156, 306
Packaging bulk	None

IATA

Basic shipping requirements:

UN number	3108
Proper shipping name	Organic peroxide type E, solid
Hazard class	5.2

IMDG

Basic shipping requirements:

UN number	3108
Proper shipping name	ORGANIC PEROXIDE TYPE E, SOLID
Hazard class	5.2

Environmental hazards

Marine pollutant	No
EmS No.	F-J, S-R

TDG

Basic shipping requirements:

Proper shipping name	Consumer commodity
Hazard class	ORM-D
Subsidiary hazard class	None
Labels required	None

Additional information:

Packaging exceptions	156, 306
Packaging non bulk	156, 306
Packaging bulk	None

IATA

IMDG

15. Regulatory Information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Benzoyl peroxide (CAS 94-36-0)	1.0 %
Dibutyl phthalate (CAS 84-74-2)	1.0 %
Methyl methacrylate (CAS 80-62-6)	1.0 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Benzoyl peroxide (CAS 94-36-0)	Listed.
Dibutyl phthalate (CAS 84-74-2)	Listed.
Methyl methacrylate (CAS 80-62-6)	Listed.

CERCLA (Superfund) reportable quantity (lbs)

Methyl methacrylate 1000
Dibutyl phthalate 10

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance

No

Section 311 hazardous chemical

No

Drug Enforcement Agency (DEA)

Not controlled

Canadian regulations

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

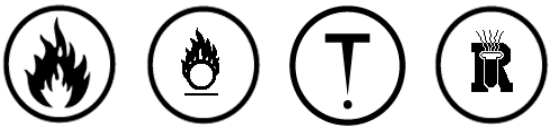
WHMIS status

Controlled

WHMIS classification

B2 - Flammable/Combustible
C - Oxidizing
D2A - Other Toxic Effects-VERY TOXIC
D2B - Other Toxic Effects-TOXIC
F - Reactive

WHMIS labeling



Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

State regulations WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

US - California Hazardous Substances (Director's): Listed substance

Benzoyl peroxide (CAS 94-36-0)	Listed.
Dibutyl phthalate (CAS 84-74-2)	Listed.
Methyl methacrylate (CAS 80-62-6)	Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Dibutyl phthalate (CAS 84-74-2)	Listed.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

Dibutyl phthalate (CAS 84-74-2)	Listed: December 2, 2005 Developmental toxin.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

Dibutyl phthalate (CAS 84-74-2)	Listed: December 2, 2005 Female reproductive toxin.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

Dibutyl phthalate (CAS 84-74-2)	Listed: December 2, 2005 Male reproductive toxin.

US - Massachusetts RTK - Substance: Listed substance

Benzoyl peroxide (CAS 94-36-0)	Listed.
Dibutyl phthalate (CAS 84-74-2)	Listed.
Methyl methacrylate (CAS 80-62-6)	Listed.

US - New Jersey Community RTK (EHS Survey): Reportable threshold

Benzoyl peroxide (CAS 94-36-0)	500 LBS
Dibutyl phthalate (CAS 84-74-2)	500 LBS
Methyl methacrylate (CAS 80-62-6)	500 LBS

US - New Jersey RTK - Substances: Listed substance

Benzoyl peroxide (CAS 94-36-0)	Listed.
Dibutyl phthalate (CAS 84-74-2)	Listed.
Methyl methacrylate (CAS 80-62-6)	Listed.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

Benzoyl peroxide (CAS 94-36-0)	Listed.
Dibutyl phthalate (CAS 84-74-2)	Listed.
Methyl methacrylate (CAS 80-62-6)	Listed.

16. Other Information

Further information HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings
Health: 2*
Flammability: 3
Physical hazard: 1

NFPA ratings
Health: 2
Flammability: 3
Instability: 1

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available.

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