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Conforms to: W.H.I.M.S. - O.S.H.A. - ECC – Regulation 91/155/ECC

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Product Identification

Product Class: Polyester Resin Kit
Product Name: Hammercap© Adhesive Anchor – HAC10 – HAC30
Description: Two component, glass encapsulated Polyester Adhesive System
Part B is in the void between the outer and the inner capsule and Part A is in the sealed inner capsule.

Hazardous Identification Index:

Health :	2	Flammability:	3
Reactivity:	2	Personal Protective Equip.:	B

Hazardous Ingredients

Composition:

Ingredients	content %	symbol	R-phrases	CAS
Dibenzoyl peroxide	30-60	E/Xi	2-7-36-43	CAS 94-36-0
Styrene	20-40	Xn/Xi	10-20-36/38	CAS 100-42-5
Silicon dioxide	5-10			CAS 7631-86-9

Exposure limits:

Ingredients	MAK-value	TRK-value	BAT-value	CAS
Dibenzoyl peroxide	5 mg/m^3			CAS 94-36-0
Styrene	20 ppm (86 mg/m^3)		600 mg/g	CAS 100-42-5
Silicon dioxide	6 mg/m^3			CAS 7631-86-9

Physical and Chemical Data

Physical state:	B: solid, powder	A: liquid
Color.	B: red	A: yellow
Odor:	B: odorless	A: characteristic
pH-value, undiluted:	B: 7	

Boiling point / range (°C):	B: decomposition > 60°C (SADT) A: 145°C (Styrene)
Melting point / range (°C):	B: 55°C A: 31°C (Styrene)
Oxidizing properties:	B: Yes A: No
Vapor pressure:	A: 6h Pa/20°C (Styrene)
Relative density (g/ml):	A: 1,15 g/cm^3/20°C
Bulk density:	A: 630 kg/m^3/20°C
Solubility in water:	A/B: Unsoluble
Viscosity:	A: 2200 mPas/23°C

A = Resin compound B = Peroxide compound

Fire and Explosion Hazard Data

Flammability Classification:	Flammable Liquid
Flash point (°C):	A: 31 (Styrene)
Auto flammability:	B: No
Minimum limit of explosion:	A: 1,1 Vol % (Styrene)
Maximum limit of explosion:	A: 8,9 Vol % (Styrene)
Extinguishing media:	Carbon dioxide (CO2), dry chemical, foam, water jet spray
Special fire fighting procedures:	Cool with water spray. Use protective respirator with independent air supply. Isolate from heat, electrical equip., sparks, and open flame.
In case of fire the following can develop:	Gases hazardous to health Carboxylic acids Oxides of carbon Organic decomposition products (may be toxic) Flammable vapor / air mixtures Vapors hazardous to health

Reactivity Data

Stability:	Stable at temperatures below 60° C
Incompatibility:	Avoid contact with other chemicals, rust, bases, amines, acids - violent reaction, heavy metal salt, strong alkalis and oxidizing agents.
Hazardous decomposition products:	Carbon dioxide, carbon monoxide, and carboxylic acids
Hazardous polymerization:	Will occur with heat, absence of stabilizers
Stabilizers necessary:	Yes
Stabilizers available:	Yes

Health Hazard Data

Primary routes of exposure:	Skin eyes, inhalation
Signs and symptoms of exposure:	Causes eye burns. Skin irritant, may cause sensitization by skin contact. Can cause allergic skin and respiratory condition. Vapors can cause headache, nausea dizziness, fatigue drowsiness. Can have a narcotic effect if inhaled.
Carcinogenicity:	Quartz particles of respirable sizes are considered by IARC to be an animal carcinogen. Styrene is a suspected carcinogen in animals with inconclusive data on humans. The nature and use of this product should not pose a cancer risk to humans. Silicon dioxide (quartz) is known to cause silicosis by inhalation of airborne dusts. If the silica is encapsulated in the epoxy no exposure to airborne dusts is to be expected. However, during removal by mechanical abrasion, appropriate safety practices should be followed to prevent inhalation of airborne dusts.

Medical conditions aggravated by exposure: Skin and eye conditions.

Emergency and First Aid Procedures

Eyes:	Immediately flush with plenty of water for at least 15 minutes using eye was bottle if possible. Call a physician.
Skin:	Wash with soap and water. Remove contaminated clothing and launder before reuse.
Inhalation:	Move victim to fresh air. Give oxygen and/or artificial respiration if needed. Call a physician.
Ingestion:	Give plenty of water to drink. Do not induce vomiting. Call a physician. Never give anything by mouth to an unconscious person. Delayed effects from exposure (Styrene) can be expected.
Other:	Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure.

Ecological Information

Liquid with moderate mobility.

Water hazard class:	B: 1 (slightly hazardous) , A: 2 (hazardous)
Degradability:	CE50130Min. 35 mg/l (degradability of activated sludge (Dibenzoyl peroxide)
Behavior in sewage plants:	n/a
Toxicity to fish:	LC50 Leuciscus idus 35 mg/l/48h (Styrene) LC50/96h 2 mg/l Poecillia reticulata (Dibenzoyl peroxide), NOEC/96h 0,7 mg/l
Toxicity to daphnia:	LC50/96h 3,7 mg/l Daphnia magna (Dibenzoyl peroxide)
Toxicity to bacteria:	EC1O Pseudomonas putida250µ1/1/18h (Styrene)

Safe Handling and Personal Protective Equipment

Respiratory Protection:	Use NIOSH approved organic vapor respirator when vapor concentrations exceed recommended exposure limits.
Ventilation:	General (natural or mechanically induced fresh air movements that maintain vapor concentrations below recommended exposure limits.
Eye Protection:	Safety glasses (Side shields recommended).
Protective Gloves:	Impermeable (Neoprene, PVC or rubber).

Precautions For Safe Handling, Storage and Use

Precautionary Labeling:	Warning! Flammable. Causes eye burns and skin irritation. Can have anesthetic effect if inhaled. Can cause allergic skin and respiratory reactions. Keep away from heat, sparks and open flame. Avoid contact with eyes, skin and clothing. Avoid breathing in vapor. Avoid prolonged or repeated contact with skin. Use with adequate ventilation. Wash thoroughly after handling.
Handling and Storing:	Keep in a cool dry place out of direct rays of sun. do not store products in walkways or stairwells. Store below 25° C. Keep away from ignition sources such as excess heat, sparks, and open flame. Danger of explosion by storing in sealed containers. Dispose of broken capsules.
Spill Procedures:	Remove all sources of ignition. Cover with absorbent material and place in salvage container for proper disposal. Prevent form entering draining system.

Waste Disposal Information

EC disposal code number: 08 04 04 (hardened adhesives and sealants)

Waste Disposal Methods: Consult with local regulatory agencies or corporate personnel for disposal methods that comply with local, state and federal health and environmental regulations.

Transport Information

CANADA – TDG - ; US – 49CFR-

Shipping Name	: Polyester Resin Kit
Description	: Flammable
Product Identification Number	: UN3269
Classification	: 3
Packaging Group	: III (49CFR) ; II (TDG)
Label(s)	: 3 – Flammable liquid

Packaging Authorizations (References to regulations – 49CFR)

Exceptions	: 173.152
Non-bulk packaging	: 173.225
Bulk packaging	none

Quantity Limitations:

Passenger Aircraft, Road/Railway Vehicles	: Maximum net quantity per package is 5.0 kg (49CFR) ; 5.0 kg (TDG)
Cargo Aircraft Only	: 5.0 kg L

Transport by Sea:

GGVSee/IMDG-Code:	3.3/3377-1/III (class/code/pack.group)
EmS – Number:	3-07
MFAG – Number:	310
Marine pollutant:	Yes

Vessel Stowage Requirements:

Vessel Stowage Location (49 CFR): B- (i) May be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to no more than 25 passengers, or one passenger per each three meters of overall vessel length: (ii) "On deck only" on passenger vessels carrying more than 25 passengers.

User Notification

To the best of our knowledge the information contained herein is correct. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Final determination of suitability of the chemical is the sole responsibility of the user. Users of any chemical should satisfy themselves that the conditions and methods of use assure that the chemical is used safely. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO THE INFORMATION CONTAINED HEREIN OR THE CHEMICAL TO WHICH THE INFORMATION REFERS.