11/22/2017	Kit Components
Product code	Description
1,103	294007075, 294007105 Epoxy Patch 75ml & 300ml
Components:	
387	294007075, 294007105 Epoxy Patch Resin
388	294007075, 294007105 Epoxy Patch Hardener

JBICAVAN

Safety Data Sheet acc. to OSHA HCS

Printing date 11/22/2017 Reviewed on 11/22/2017

1 Identification

· Product identifier

· Trade name: Epoxy Patch Resin

· Article number: 294007075, 294007105

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

QubicaAMF Worldwide, LLC

8100 AMF Drive

Mechanicsville, VA 23111, USA

General Telephone 804-730-4000; 800-342-5263

- · Information department: Product safety department.
- · Emergency telephone number:

ChemTel 24-hour Emergency Phone Numbers

United States, Canada, Puerto Rico, U.S. Virgin Islands: 1-800-255-3924, Australia: 1-300-954-583, Brazil: 0-800-591-6042, China: 400-120-0751, India: 000-800-100-4086, Mexico: 01-800-099-0731, All other countries (collect calls accepted): +1-813-248-0585

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms GHS05, GHS07, GHS08
- · Signal word Danger
- · Hazard-determining components of labeling:

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700) 4-nonylphenol, branched

Polypropyleneglycol Glycidyl Ether

· Hazard statements

Causes skin irritation.

Causes serious eye damage.

May cause an allergic skin reaction.

Suspected of damaging fertility or the unborn child.

(Contd. on page 2)

Printing date 11/22/2017 Reviewed on 11/22/2017

Trade name: Epoxy Patch Resin

(Contd. of page 1)

· Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

IF ON SKIN: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Immediately call a POISON CENTER/doctor.

Specific treatment (see on this label).

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Wash contaminated clothing before reuse.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 1Fire = 1Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = *1Fire = 1

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous	components:	
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)	50-100%
9072-62-2	Polypropyleneglycol Glycidyl Ether	2.5-10%
84852-15-3	4-nonylphenol, branched	2.5-10%
7631-86-9	silicon dioxide, chemically prepared (wetted form, non-particulate)	≤ 2.5%
	fatty acids, tall-oil-reaction products wirh iminodiethanol and boric acid	≤ 2.5%

Printing date 11/22/2017 Reviewed on 11/22/2017

Trade name: Epoxy Patch Resin

(Contd. of page 2)

4 First-aid measures

- · Description of first aid measures
- · After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Seek immediate medical advice.

A person vomiting while lying on their back should be turned onto their side.

DO NOT attempt to give anything by mouth to an unconscious person.

- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire fighting measures that suit the environment.

- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

Do not inhale explosion gases or combustion gases.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

Keep people at a distance and stay upwind.

· Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/surface or ground water.

· Methods and material for containment and cleaning up:

Send for recovery or disposal in suitable receptacles.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

(Contd. on page 4)

Printing date 11/22/2017 Reviewed on 11/22/2017

Trade name: Epoxy Patch Resin

See Section 13 for disposal information.

(Contd. of page 3)

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Store in cool, dry place in tightly closed receptacles.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

Stoor indoors.

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 5)

Printing date 11/22/2017 Reviewed on 11/22/2017

Trade name: Epoxy Patch Resin

(Contd. of page 4)

· Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Tightly sealed goggles

· **Body protection:** Protective work clothing

9 Physical and chemical propertie	S
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T C	, .	1 . 1	- 1	1	
Information of	n basıc	pnvsicai	ana	cnemical	properties

· General Information

· Appearance:

Form: Liquid

Color: According to product specification

· Odor: Mild

· Odor threshold: Not determined.

· pH-value: Not determined.

· Change in condition

Melting point/Melting range: Undetermined. Boiling point/Boiling range: $> 260 \,^{\circ}C \, (> 500 \,^{\circ}F)$

• Flash point: $249 \, ^{\circ}C \, (480 \, ^{\circ}F)$

· Flammability (solid, gaseous): Not applicable.

· Ignition temperature:

Decomposition temperature: Not determined.

· Auto igniting: Product is not selfigniting.

• Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

Lower:Not determined.Upper:Not determined.

· Vapor pressure: Not determined.

· Density: Not determined.

• Relative density
• Vapor density
• Vapor density
• Not determined.
• Not determined.

• **Evaporation rate** Not determined.

Not determined.

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic: Not determined. **Kinematic:** Not determined.

(Contd. on page 6)

Printing date 11/22/2017 Reviewed on 11/22/2017

Trade name: Epoxy Patch Resin

Solids content: Other information	99.9 % No further relevant information available.	
· Solvent content: Organic solvents:	0.0 %	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Avoid elevated temperatures.

· Possibility of hazardous reactions

Reacts with amines.

Reacts with catalysts, oxidizing agents and strong alkali.

Hazardous polymerization may occur if mixed with amines in large masses and/or with heat.

- · Conditions to avoid No further relevant information available.
- · Incompatible materials: Strong acids, strong bases, strong oxidizers, amines, and mercaptans.
- · Hazardous decomposition products:

Carbon monoxide and carbon dioxide

Unknown hydrocarbons.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

· LD/LC5	0 value	es that are relevant for classification:
84852-1	5-3 4-n	nonylphenol, branched
Oral	LD50	580 mg/kg (rat)
Dermal	LD50	2140 mg/kg (rabbit)

- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization: Sensitization possible through skin contact.
- · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Irritant

· Carcinogenic categories

· IARC (Inter	national Agency for Research on Cancer)	
13463-67-7	titanium dioxide wetted form, non-particulate	2 <i>B</i>
7631-86-9	silicon dioxide, chemically prepared (wetted form, non-particulate)	3
1333-86-4	Carbon black wetted form, non-particulate	2B
31/ED /31 /*	1m · 1 n	

· NTP (National Toxicology Program)

None of the ingredients is listed.

(Contd. on page 7)

Printing date 11/22/2017 Reviewed on 11/22/2017

Trade name: Epoxy Patch Resin

(Contd. of page 6)

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Toxic for fish
- · Additional ecological information:
- · General notes:

Water hazard class 3 (Self-assessment): extremely hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · **vPvB**: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation:

Disposal must be made according to official regulations.

Dispose of in accordance to all local, state, and/or national regislation.

14 Transport information

· UN-Number	
\cdot DOT	Not Applicable
· ADR, IMDG, IATA	UN3082

· UN proper shipping name

· **DOT** Not Applicable

• ADR 3082 Environmentally hazardous substances, liquid, n.o.s. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700), 4-nonylphenol, branched)

(Contd. on page 8)

Printing date 11/22/2017 Reviewed on 11/22/2017

Trade name: Epoxy Patch Resin

N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy res (number average molecular weight ≤ 700), 4-nonylpheno branched), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUII N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy res (number average molecular weight ≤ 700), 4-nonylpheno branched) Transport hazard class(es) DOT Class Not Applicable ADR, IMDG, IATA ADR, IMDG, IATA Packing group DOT ADR, IMDG, IATA III Environmental hazards: Product contains environmentally hazardous substances: nonylphenol, branched, reaction product: bisphenol-4(epichlorhydrin) epoxy resin (number average molecular weight 700) Marine pollutant: Yes Special marking (ADR): Symbol (fish and tree)		(Contd. of page
DOT Class ADR, IMDG, IATA Class Class Packing group DOT ADR, IMDG, IATA III Environmental hazards: Product contains environmentally hazardous substances: nonylphenol, branched, reaction product: bisphenol-i(epichlorhydrin) epoxy resin (number average molecular weight 700) Marine pollutant: Yes Symbol (fish and tree) Special marking (ADR): Special marking (IATA): Symbol (fish and tree) Special marking (IATA): Symbol (fish and tree) Special precautions for user Danger code (Kemler): F-A,S-F Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Transport/Additional information: DOT Remarks: Not regulated. UN ''Model Regulation'': UN3082, Environmentally hazardous substances, liquid, n.o. (reaction product: bisphenol-A-(epichlorhydrin) epoxy res. (number average molecular weight ≤ 700), 4-nonylphenol.		ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700), 4-nonylphenol
Class ADR, IMDG, IATA Class Class Packing group DOT ADR, IMDG, IATA III Not Applicable Product contains environmentally hazardous substances: nonylphenol, branched, reaction product: bisphenol-fepichlorhydrin) epoxy resin (number average molecular weight 700) Marine pollutant: Special marking (ADR): Special marking (IATA): Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Transport/Additional information: DOT Remarks: Not regulated. UN "Model Regulation": UN3082, Environmentally hazardous substances, liquid, n.o. (reaction product: bisphenol-A-(epichlorhydrin) epoxy rese (number average molecular weight < 700), 4-nonylphenol	· Transport hazard class(es)	
Class Label Packing group DOT ADR, IMDG, IATA Environmental hazards: Not Applicable III Environmental hazards: Product contains environmentally hazardous substances: nonylphenol, branched, reaction product: bisphenol-A (epichlorhydrin) epoxy resin (number average molecular weight 700) Marine pollutant: Yes Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) Feacking group Marking (ADR): Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree) Transport are warning: Miscellaneous dangerous substances and articles 90 F-A,S-F Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. Transport/Additional information: DOT Remarks: Not regulated. UN ''Model Regulation'': UN3082, Environmentally hazardous substances, liquid, n.o. (reaction product: bisphenol-A-(epichlorhydrin) epoxy res. (number average molecular weight ≤ 700), 4-nonylphenol	-	Not Applicable
- Label 9 - Packing group - DOT Not Applicable - III - Environmental hazards: Product contains environmentally hazardous substances: nonylphenol, branched, reaction product: bisphenol-ic (epichlorhydrin) epoxy resin (number average molecular weight 700) - Marine pollutant: Yes - Symbol (fish and tree) - Special marking (ADR): Symbol (fish and tree) - Special marking (IATA): Symbol (fish and tree) - Special precautions for user Warning: Miscellaneous dangerous substances and articles - Danger code (Kemler): 90 - EMS Number: F-A,S-F - Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable Transport/Additional information: - DOT - Remarks: Not regulated UN "Model Regulation": UN3082, Environmentally hazardous substances, liquid, n.o. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resunable average molecular weight ≤ 700), 4-nonylphenology	· ADR, IMDG, IATA	
DOT ADR, IMDG, IATA Environmental hazards: Product contains environmentally hazardous substances: a nonylphenol, branched, reaction product: bisphenol-4 (epichlorhydrin) epoxy resin (number average molecular weight 700) Marine pollutant: Yes Symbol (fish and tree) Special marking (ADR): Special marking (IATA): Symbol (fish and tree) Special precautions for user Danger code (Kemler): EMS Number: Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. Transport/Additional information: DOT Remarks: Not regulated. UN ''Model Regulation'': UN3082, Environmentally hazardous substances, liquid, n.o. (reaction product: bisphenol-A-(epichlorhydrin) epoxy rese (number average molecular weight ≤ 700), 4-nonylphenolender substances and product is substances and articles to the product is substances and articles in the product in the product is substances and articles in		
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Special precautions for user Danger code (Kemler): EMS Number: F-A,S-F Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. Transport/Additional information: DOT Remarks: Not regulated. UN "Model Regulation": UN3082, Environmentally hazardous substances, liquid, n.o. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resent (number average molecular weight ≤ 700), 4-nonylphenolemolemolemolemolemolemolemolemolemolem	· Special marking (ADR):	Symbol (fish and tree) Symbol (fish and tree)
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DOT Remarks: Not regulated. UN''Model Regulation'': UN3082, Environmentally hazardous substances, liquid, n.o. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resulting (number average molecular weight ≤ 700), 4-nonylphenolymorphical (number average molecular weight)		
• Remarks: Not regulated. • UN "Model Regulation": UN3082, Environmentally hazardous substances, liquid, n.o. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resulting (number average molecular weight ≤ 700), 4-nonylphenol	· Transport/Additional information:	
(reaction product: bisphenol-A-(epichlorhydrin) epoxy resonant (number average molecular weight ≤ 700), 4-nonylpheno	_	Not regulated.
	· UN ''Model Regulation'':	UN3082, Environmentally hazardous substances, liquid, n.o.s (reaction product: bisphenol-A-(epichlorhydrin) epoxy resist (number average molecular weight \leq 700), 4-nonylphenol branched), 9, III

Printing date 11/22/2017 Reviewed on 11/22/2017

Trade name: Epoxy Patch Resin

84852-15-3 4-nonylphenol, branched

	(Contd. of page
Regulator	y information
· Sajeiy, neai · Sara	th and environmental regulations/legislation specific for the substance or mixture
· Section 355	(extremely hazardous substances):
None of the	ingredient is listed.
· Section 313	(Specific toxic chemical listings):
	ingredients is listed.
· TSCA (Toxi	ic Substances Control Act):
•	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight 700)
13463-67-7	titanium dioxide wetted form, non-particulate
9072-62-2	Polypropyleneglycol Glycidyl Ether
84852-15-3	4-nonylphenol, branched
7631-86-9	silicon dioxide, chemically prepared (wetted form, non-particulate)
64742-47-8	Distillates (petroleum), hydrotreated light
1333-86-4	Carbon black wetted form, non-particulate
8052-41-3	Stoddard solvent
· California I	Proposition 65
· Chemicals k	known to cause cancer:
13463-67-7	titanium dioxide wetted form, non-particulate
1333-86-4	Carbon black wetted form, non-particulate
· Chemicals k	known to cause reproductive toxicity for females:
None of the	ingredients is listed.
· Chemicals k	known to cause reproductive toxicity for males:
None of the	ingredients is listed.
· Chemicals k	known to cause developmental toxicity:
	ingredients is listed.
<u> </u>	*
0	nity categories
	ingredients is listed.
*	hold Limit Value established by ACGIH)
	titanium dioxide wetted form, non-particulate
	Carbon black wetted form, non-particulate
	(National Institute for Occupational Safety and Health)
	titanium dioxide wetted form, non-particulate
	Carbon black wetted form, non-particulate
	emical Inventory of Existing Chemical Substances
	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight 700)
	titanium dioxide wetted form, non-particulate
9072-62-2	Polypropyleneglycol Glycidyl Ether

Printing date 11/22/2017 Reviewed on 11/22/2017

Trade name: Epoxy Patch Resin

	(Contd. of page 9)
7631-86-9	silicon dioxide, chemically prepared (wetted form, non-particulate)
64742-47-8	Distillates (petroleum), hydrotreated light
1333-86-4	Carbon black wetted form, non-particulate
8052-41-3	Stoddard solvent

- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms GHS05, GHS07, GHS08
- · Signal word Danger

· Hazard-determining components of labeling:

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)

4-nonylphenol, branched

Polypropyleneglycol Glycidyl Ether

· Hazard statements

Causes skin irritation.

Causes serious eye damage.

May cause an allergic skin reaction.

Suspected of damaging fertility or the unborn child.

· Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Avoid breathing dust/fume/gas/mist/vapors/spray

Wash thoroughly after handling.

Contaminated work clothing must not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.

IF ON SKIN: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF exposed or concerned: Get medical advice/attention.

Immediately call a POISON CENTER/doctor.

Specific treatment (see on this label).

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Wash contaminated clothing before reuse.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

Health and safety information presented on this form is generally applicable for recomended usage of this product. This information was compiled from current, reliable sources and is believed to be correct. As data and/or regulations change and conditions of use and handling are beyond our control, no warranty, express, or implied, is made as to completeness or continuing accuracy of this information.

- · Department issuing SDS: Product safety department.
- · Date of preparation / last revision 11/22/2017 / -
- · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

(Contd. on page 11)

Printing date 11/22/2017 Reviewed on 11/22/2017

Trade name: Epoxy Patch Resin

(Contd. of page 10)

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

 $NFPA: National\ Fire\ Protection\ Association\ (USA)$

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation - Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Repr. 2: Reproductive toxicity – Category 2

HS.

DUBICA VAN

Safety Data Sheet acc. to OSHA HCS

Printing date 11/22/2017 Reviewed on 11/22/2017

1 Identification

· Product identifier

· Trade name: Epoxy Patch Hardener

· Article number: 294007075, 294007105

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

QubicaAMF Worldwide, LLC

8100 AMF Drive

Mechanicsville, VA 23111, USA

General Telephone 804-730-4000; 800-342-5263

- · Information department: Product safety department.
- · Emergency telephone number:

ChemTel 24-hour Emergency Phone Numbers

United States, Canada, Puerto Rico, U.S. Virgin Islands: 1-800-255-3924, Australia: 1-300-954-583, Brazil: 0-800-591-6042, China: 400-120-0751, India: 000-800-100-4086, Mexico: 01-800-099-0731, All other countries (collect calls accepted): +1-813-248-0585

2 Hazard(s) identification

· Classification of the substance or mixture



Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

- · Label elements
- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms GHS07
- · Signal word Warning
- · Hazard statements

Causes skin irritation.

Causes serious eye irritation.

· Precautionary statements

Wash thoroughly after handling.

Wear protective gloves / eye protection / face protection.

IF ON SKIN: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Specific treatment (see on this label).

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 1Fire = 1

Reactivity = 0

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Safety Data Sheet acc. to OSHA HCS

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· HMIS-ratings (scale 0 - 4)



- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.
- · Dangerous components:

90-72-2 2,4,6-tris(dimethylaminomethyl)phenol

2.5-10%

4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- · After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact: Rinse opened eye for several minutes under running water.
- · After swallowing:

Do not induce vomiting. Give large amounts of water followed by milk if available. If vomiting should occur spontaneously, keep airway clear. Get medical attention. Never give anything by mouth to an unconscious person.

- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- $\cdot \textit{Indication of any immediate medical attention and special treatment needed}$

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire fighting measures that suit the environment.

· Special hazards arising from the substance or mixture

Carbon dioxoide, carbon monoxide, hydrogen sulfide, & oxides of sulfur.

- · Advice for firefighters
- · Protective equipment:

Wear fully protective suit.

Do not inhale explosion gases or combustion gases.

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Wear self-contained respiratory protective device.

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6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

Keep people at a distance and stay upwind.

- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Flush area with water to remove residues.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

- · Handling:
- · Precautions for safe handling No special measures required.
- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

- · Breathing equipment: Not required.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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· Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- · Eye protection: Goggles recommended during refilling.
- · **Body protection:** Protective work clothing

Information on basic physical and	chemical properties	
General Information		
Appearance: Form:	Linuid	
Form: Color:	Liquid According to product specification	
Odor:	According to product specification Like rotten eggs (mercaptans)	
Odor threshold:	Not determined.	
pH-value:	Not determined.	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	Undetermined.	
Flash point:	259 °C (498 °F)	
Flammability (solid, gaseous):	Not applicable.	
Ignition temperature:	ног аррисанс.	
Decomposition temperature:	Not determined.	
Auto igniting:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapor pressure:	Not determined.	
Density:	Not determined.	
Relative density	Not determined.	
Vapor density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with		
Water:	Not miscible or difficult to mix.	
Partition coefficient (n-octanol/wat	er): Not determined.	
Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Solvent content:		
Organic solvents:	0.0 %	
Solids content:	100.0 %	

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· Other information

No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions

Hazardous polymerization may occur if mixed with epoxy resins. Excessive exothermic reactions will occur when mixed with epoxy resins in large masses (>100 grams).

- · Conditions to avoid No further relevant information available.
- · Incompatible materials: Strong acids, strong bases, strong oxidizers, epoxy resins
- · Hazardous decomposition products:

Hydrogen sulfide

Carbon monoxide

Sulfur oxides (SOx)

Carbon dioxide

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.

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- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation: Smaller quantities can be disposed of with household waste.
- · Uncleaned packagings:
- · Recommendation:

Disposal must be made according to official regulations.

Dispose of in accordance to all local, state, and/or national regislation.

UN-Number	
DOT, ADR, ADN, IMDG	Not Applicable
IATA	UN3334
UN proper shipping name	
DOT, ADR, ADN, IMDG	Not Applicable
IATA	Aviation regulated liquid, n.o.s.
Transport hazard class(es)	
DOT, ADR, ADN, IMDG	
Class	Not Applicable
IATA	
Class	9 Miscellaneous dangerous substances and articles
Packing group	
DOT, ADR, IMDG	Not Applicable
IATA	III
Environmental hazards:	
Marine pollutant:	No
Special precautions for user	Not applicable.
Transport in bulk according to Annex	II of
MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
DOT	
Remarks:	Not Regulated
ADR	
Remarks:	Not Regulated

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· IMDG

• Remarks: Not Regulated

 \cdot IATA

· Remarks: Not Regulated

· UN ''Model Regulation'': Not Applicable

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara
- · Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

90-72-2 2,4,6-tris(dimethylaminomethyl)phenol

- · California Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- · Cancerogenity categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· Chinese Chemical Inventory of Existing Chemical Substances

90-72-2 2,4,6-tris(dimethylaminomethyl)phenol

- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms GHS07
- · Signal word Warning
- · Hazard statements

Causes skin irritation.

Causes serious eye irritation.

· Precautionary statements

Wash thoroughly after handling.

Wear protective gloves / eye protection / face protection.

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Trade name: Epoxy Patch Hardener

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IF ON SKIN: Wash with plenty of water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Specific treatment (see on this label).

If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

Health and safety information presented on this form is generally applicable for recomended usage of this product. This information was compiled from current, reliable sources and is believed to be correct. As data and/or regulations change and conditions of use and handling are beyond our control, no warranty, express, or implied, is made as to completeness or continuing accuracy of this information.

- · Department issuing SDS: Product safety department.
- · Date of preparation / last revision 11/22/2017 / -
- · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

US