

TDS

FPO47_21

SERIE EPOXY UNO

(CODIGOS: UNON98, UNOB98, UNOA98, UNOM98, UNOC98, UNOAL98, UNOIG98, UNOC40)

Descripción de producto

SERIE EPOXY UNO es una nueva generación de adhesivo epoxico en estado físico en pasta y 2 componentes, se formula a partir de resina 100% sólidos totales (libre de solvente) parte A y como catalizador (endurecedor) parte B una mezcla de aminas alifáticas y poliamidas de media viscosidad, de corto tiempo de reacción y excelente propiedades químicas y mecánicas así como cargas inorgánicas (agregados minerales)

Durante su reacción genera una reacción exotérmica entre 40 y 60 °C, dependerá de la cantidad a mezclar

El producto contiene un juego de paletas de madera para su mezcla, un lija y un malla de refuerzo para mejorar su desempeño en algunas aplicaciones

Características

La SERIE EPOXY UNO una vez mezclado de manera correcta desarrolla un adhesivo (polímero termofijo) de alta dureza, excelentes propiedades mecánicas a la compresión y abrasión, alta resistencia química a sustancia acidas y álcalis, resistencia a los solventes, no genera hongos en presencia de humedad y resistente al agua así como resistencia a altas temperaturas

Usos

SERIE EPOXY UNO se recomienda para pegar, rellenar o encapsular cualquier material o superficie rígida

CODIGO FUSION EPOXY	COLOR DE MEZCLA	CONSISTENCIA FISICA	RELACION DE MEZCLA A y B	TIEMPO DE MEZCLA	TIEMPO DE APLICACIÓN	TIEMPO DE SECADO @ 25°C	TIEMPO DE USO	TEMP MAXIMA DE TRABAJO (radiacion)	FUERZA DE COMPRESION	ADHERENCIA (TENSION)	RESISTENCIA QUIMICA	TRABAJA BAJO AGUA	ANTIHONGOS
			en peso	min	min	min	hrs	°C	KG/CM2	KG/CM2		inmersion	sanitario
UNON98	NEGRO	PASTA	1 a 1	3	12	30	24	600	700	150	EXCELENTE	SI	SI
UNOB98	BLANCO	PASTA	1 a 1	3	12	30	24	600	700	150	EXCELENTE	SI	SI
UNOA98	ACERO	PASTA	1 a 1	3	12	30	24	600	700	150	EXCELENTE	SI	SI
UNOM98	MARINO	PASTA	1 a 1	3	12	30	24	600	600	150	EXCELENTE	SI	SI
UNOC98	COBRE	PASTA	1 a 1	3	15	45	24	400	400	180	MUY BUENA	SI	SI
UNOAL98	ALUMINIO	PASTA	1 a 1	3	15	45	24	400	400	180	MUY BUENA	SI	SI
UNOIG98	GEL	CREMA	1 a 1	3	15	45	24	400	400	180	MUY BUENA	SI	SI
UNOC40	CLEAR	LIQUIDO	1 a 1	2	30	60	24	400	400	180	EXCELENTE	NO	SI

Dilución: no se recomienda usar solventes

Propiedades Físicas y Químicas

Resistencia a la luz	Buena
Corrosión	Excelente
Adherencia	100%
Resistencia a ácidos	Buena
Álcalis	Excelente
Disolventes	Excelente
Agua	Excelente
Gasolina	Buena

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Presentación:

CODIGO	PARTE A (gr)	PARTE B (gr)	PRESENTACION
UNON98	50	50	TARRO
UNOB98	50	50	TARRO
UNOA98	50	50	TARRO
UNOM98	50	50	TARRO
UNOIG98	50	50	TARRO
UNOCO98	50	50	TARRO
UNOAL98	50	50	TARRO
UNOC40	35	15	TARRO

Preparación de superficie y uso de producto:

1. Las superficies en donde se aplicará SERIE EPOXY UNO deberán estar limpias y libres de residuos, tendrá mejores si las superficies son lijadas previamente.
 2. Utilice un recipiente adecuado para depositar el producto a utilizar únicamente
 3. Dosifique cantidades de la parte A como de la Parte B según la tabla y necesidad
 4. Mezcle completamente con la paleta de agitación hasta lograr una mezcla uniforme (mínimo 3 minutos).
- Es de suma importancia que la mezcla quede homogénea para no perjudicar el resultado final.
5. Aplique la mezcla obtenida en las superficies a unir o rellenar
 6. Soporta temperaturas de hasta 600°C
 7. El tiempo de manejo o aplicación será de 15 min aproximadamente (puede variar de acuerdo a la temperatura de aplicación) y debe ser usado antes que inicie la reacción y genere temperatura propia, a mayor cantidad se acorta el tiempo de manipulación
 8. Limpie los excedentes con alcohol.

Almacenaje

El material se conserva 36 meses en condiciones óptimas en un lugar fresco, seco y bien ventilado y debe mantenerse el recipiente bien cerrado

Condiciones de aplicación

No aplicar el producto si la temperatura ambiente es menor a los 4°C o mayor a los 43°C.

Lavar perfectamente el equipo utilizado al terminar la aplicación

PRECAUCION

Este producto deberá instalarse en áreas bien ventiladas, goggles, ropa de seguridad (algodón) y guantes, ya que contiene sustancias cuya inhalación prolongada afecta la salud

ATENCIÓN

Sugerencias y datos ofrecidos son de buena fé sin garantía en lo concerniente a la aplicación del producto, ya que las condiciones y métodos de aplicación pueden variar. Recomendamos al usuario realizar una evaluación del producto

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according to Globally Harmonized System (GHS)

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1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier** EPOXY UNO
- **Trade name:** FUSION EPOXY / FUSION POLYMERS ADHESIVES / EPOXY UNO
- **Epoxy resin based / polyamide based / alifatic amine based / mercaptane based / iron powder**
- **Applicable Models:** UNON98 / UNOB98/ UNOA98 / UNOM98 / UNOCO98 / UNOAL98 / UNOIG98 / UNOOC40

- **Synonyms:** None
- **CAS Number:**
25068-38-6

- **Relevant identified uses of the adhesives**
- **Identified/Recommended uses:** EPOXY UNO
Adhesives
For civil engineering use
For household uses
For industrial use
For construction, metal, etc
Etc.

- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
FUSION EPOXY INC, LLC 1790
Hughes Landing Blvd Suite 400,
The Woodlands, TX, 77380, USA

Tel: +886-2-2500-1800 Fax: +886-2-2501-8317
www.resinasach.com

- **Further information obtainable from:** www.fusionepoxy.com
- **Emergency telephone number:** During normal opening times: +52 55 60704517

2 Hazards identification

- **Classification of the substance :**
Skin Irrit. Could cause skin irritation.
Eye Irrit. Could cause eye irritation.

- **Hazard statements:**
Could cause skin irritation.
Could cause eye irritation.

- **Precautionary statements:**
Avoid release to the environment.
Wear protective gloves /eye protection.

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IF IN EYES: Rinse with water for several minutes. Remove contact lenses, if present and easy to do, continue rinsing.

If skin irritation or rash occurs: Get medical advice.

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

- **Other hazard:** None known.
-

3 Composition/information on ingredients

- **Chemical characterisation: Substances**

- **CAS No. Description**

25068-38-6 Epoxy Resin 100% / Polyamides / Aliphatic Amines / inorganic fillers (additives)

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.
-

4 First aid measures

- **Description of first aid measures**

- **General information:** Remove any clothing soiled by the product.

- **After inhalation:** Supply fresh air.

- **After skin contact:**

Wash with water.

- **After eye contact:**

Rinse opened eye for several minutes under running water.

- **After swallowing:** If symptoms persist consult doctor.

- **Any immediate medical attention and special treatment needed** Monitor circulation.
-

5 Firefighting measures

- **Extinguishing media**

- **Suitable extinguishing agents:**

Water spray

Alcohol resistant foam Fire-extinguishing powder

Carbon dioxide

- **For safety reasons unsuitable extinguishing agents:** Water with full jet

- **Advice for firefighters**

- **Protective equipment:**

Wear positive-pressure self-contained breathing apparatus (SCBA).

Wear protective fire fighting clothing

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

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- **Environmental precautions:**
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:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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**
Ensure good ventilation/exhaustion at the workplace.
Store in cool, dry place in tightly closed receptacles.
- **Information about fire - and explosion protection:** Protect against electrostatic charges.
- **Storage:**
- **Conditions for safe storage**
Store in a cool location.
Provide ventilation for receptacles.
- **Further information about storage conditions:** Protect from heat.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Be sure to clean skin after work and before breaks. Ensure that washing facilities are available at the work place.
- **Respiratory protection:**
Suitable respiratory protective device recommended.
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

The selected protective gloves have to satisfy the specifications of standard EN 374 or its equivalent. The glove material has to be resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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- **Material of gloves**

Butyl rubber, BR
Nitrile rubber, NBR
PVC gloves
Neoprene gloves
Ethyl vinyl alcohol laminate (EVAL)

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.

- **Penetration time of glove material**

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

- **Eye protection:**



Tightly sealed goggles

Safety glasses with side shields conforming to EN166, ANSI 87.1-2010, or equivalent.

- **Body protection:**

The type of protective equipment must be selected according to the concentration and amount of the substance at the specific workplace.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Liquid/paste
Colour: Light yellow / Transparent/black/white/clear/other

- **Odour:** Mild / without any odour

- **Odour threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/freezing point: -16 °C (at 1013 hPa)

Initial boiling point and boiling range: 320 °C

- **Flash point:** 266 °C (at 1013 hPa)

- **Flammability (solid, gas):** Not applicable.

- **Ignition temperature:** Not determined

- **Decomposition temperature:** Not determined.

- **Auto-ignition temperature:** Product is not selfigniting.

- **Explosive properties:** Product does not present an explosion hazard.

- **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

- **Vapour pressure at 25 °C:** 4.6E-8 Pa

- **Density at 25 °C:** 1.16-1.18 g/cm³ (ASTM D4052)

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· Relative density	Not determined.
· Vapour density at 25 °C	<1 g/cm ³ (Air=1)
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water at 20 °C:	6.9 mg/l
· Partition coefficient: n-octanol/water:	3.242 log POW
· Viscosity:	7000-10000 cps, 25 °C (BE-186 series) 11000-15000 cps, 25 °C (BE-188 series)
· Kinematic:	Not determined.
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity:** When properly handled and stored, no dangerous reaction is known.
- **Chemical stability:** This product is stable under prescribed use and storage.
- **Thermal decomposition / conditions to be avoided:**
Avoid temperature above 500 °C
Potentially violent decomposition can occur above 500 °C
- **Possibility of hazardous reactions:**
Could react with acids, alkalis and oxidising agents.
Masses of more than one pound (0.5 kg) of product plus an aliphatic amine will cause irreversible polymerization.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:**
Phenol

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity**

· LD/LC50 values relevant for classification:		
25068-38-6 (Chloromethyl)oxirane-4,4'-(1-methylethylidene)bisphenol copolymer/Polyamides		
Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)

- **Skin corrosion/irritation:**
Could cause skin irritation.
Rabbit: could cause irritating to the skin (OECD 404)
- **Eye irritation:**
Could cause eye irritation.
Rabbit: Could cause irritating to the eye (OECD 405)
- **Respiratory or skin sensitization:**
Could cause an allergic skin reaction.
Mouse (Local Lymph Node Assay): Sensitizing to the skin (OECD 429)
- **Germ Cell Mutagenicity:**
Not classified based on available data.
Various experiments have shown mixed results (limited mutagenic effects in some while no mutagenic effect in others).
- **Carcinogenicity:** Not classified based on available data.

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- **Reproductive Toxicity:** Not classified based on available data.
- **Specific Target Organ Toxicity - Single Exposure (STOT SE):** Not classified based on available data.
- **Specific Target Organ Toxicity - Repeated Exposure (STOT RE):**
Not classified based on available data.
- **Aspiration Hazard:** Not classified based on available data.
- **Primary irritant effect:**
- **Skin irritation could cause irritation** to skin
- **Respiratory or skin sensitisation** Sensitisation possible through skin contact.
- **Additional toxicological information: could be** irritant

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:**

25068-38-6 (Chloromethyl)oxirane-4,4'-(1-methylethylidene)bisphenol copolymer	
EC50/48h (static)	9.4 mg/l (algae) (EPA-660/3-75-009)
IC50 (static)	>100 mg/l (microorganism) (3h)
LC50/48h (static)	2.7 mg/l (invertebrate) (EPA-660/3-75-009)
LC50/96h	1.2 mg/l (fish) (EPA-660/3-75-009, semi-static)
NOEC (static)	4.2 mg/l (algae) (EPA-660/3-75-009, 72h)
	0.3 mg/l (invertebrate) (OECD 211, semi-static, 21d)

- **Persistence and degradability**
Not easily biodegradable
Degradation : 12% (28d, OECD 302B)
The rates of hydrolysis (OECD 211) : 117 h at 25 °C
- **Bioaccumulative potential**
Bioconcentration Factor (BCF) = 31
Partition coefficient, n-octanol/water (log Kow) : 3.242 @ 25 °C (est.) @ 30 °C
- **Mobility in soil** Partition coefficient, soil organic carbon/water (Koc) : 445 at 20 °C
- **Additional ecological information:**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **ADR, IMDG, IATA** UN3082
- **UN proper shipping name**
- **ADR** 3082. According UN there are not any risk or hazard in normal conditions of use.
- **Transport hazard class(es)**
- **Label.** 9 (products not hazardous according transport criteria)
- **Packing group**
- **ADR, IMDG, IATA.** III (very low danger)
- **Environmental hazards:**
- **Marine pollutant:** Yes(in big cuantities)
Symbol (fish and tree)
- **Special marking (ADR):** Symbol (fish and tree)
- **Special marking (IATA):** Symbol (fish and tree)
- **Transport/Additional information:.** **NO HAZ MAT / NOT REGULATED**
- **ADR**
- **Limited quantities (LQ)** 5L
- **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml
- **Transport category** 3
- **Tunnel restriction code** E
- **IMDG**
- **Limited quantities (LQ)** 5L
- **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml

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15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Status of global inventories:**
 - Vietnam – NCI
 - All component(s) within this product is listed or exempted from the following country's chemical inventory: USA – TSCA
 - Australia – AICS
 - Canada – DSL China – IECSC
 - EU – EINECS/NLP
 - Japan – ENCS Korea – KECI
 - New Zealand – NZIoC
 - Philippines – PICCS Taiwan – TCSI

16 Other information

- **Abbreviations and acronyms:**
 - 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 IATA: International Air Transport Association
 - CAS: Chemical Abstracts Service (division of the American Chemical Society) LC50: Lethal concentration, 50 percent
 - LD50: Lethal dose, 50 percent
 - Skin Irrit. 2: Skin corrosion/irritation – Category 2
 - Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A Skin
 - Sens. 1: Skin sensitisation – Category 1
 - Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
- **Sources**
 - Most toxicological and eco-toxicological data are obtained from European Chemical Agency (ECHA)'s public dissemination website.
 - <http://echa.europa.eu/registration-dossier/-/registered-dossier/15816>
- **General Disclaimers:**

RESINAS ACH LLC / FUSION EPOXY INC / FUSION POLYMERS SA recommends that all the users/customers/recipients to study this Safety Data Sheet (SDS) carefully and understand all the data or any potential hazards associated with this product. Please consult with appropriate expert if necessary. The information herein is provided in good faith and is believed to be accurate on the date of issue. No warranty, expressed or implied, is given. It is the customer's/user's responsibility to ensure that they are complying with local, regional, state, provincial, and/or national laws in using this product, as regulatory requirement may differ at each level. It is also the customer's/user's responsibility to determine the necessary condition required for using this product safely, as actual operating or usage conditions are beyond RESINAS ACH LLC control. RESINAS ACH LLC will not be responsible for any SDS obtained from elsewhere other than from RESINAS ACH LLC. If you are unsure whether the SDS you have is current or have obtained the SDS from another source; please contact us to obtain the latest version.