

EPO-ZF

ZERO-FLAM REEFER REPAIR ADHESIVE

Tensorgrip®

As part of our **TRANSPORT** range, **EPO-ZF** a non-flammable, low odor web spray adhesive designed for use in repairing reefer trailers using the substrates listed here.



Foam



FRP Reefer Liners



Refrigerated
Trailer



ZERO-FLAM
Technology



Low Odor



Web Spray

PRODUCT DESCRIPTION

Tensorgrip® EPO-ZF non-flammable reefer liner repair system eliminates blocking and bracing, and reduces cure time to 5 minutes so you can increase your profits and keep your customers coming back! Now you can successfully repair a full refrigerated trailer wall in 45 minutes rather than the standard 24 hours without worrying about a fire.

ADVANTAGES

- Non-flammable
- Aggressive foam tearing bond
- No more wasting time waiting for adhesive to cure
- Wide spray pattern for faster application
- Fast dry with excellent initial bond
- Good heat resistance (over 200°F)

DIRECTIONS FOR USE

Tensorgrip® EPO-ZF is designed as a portable, self-contained spray system for refrigerated trailer repair.

FOR FULL WALL REPAIR:

- Be sure foam and liner are clean and free of grease, dirt, dust, etc.
- After attaching the gun and hose to the canister, holding spray nozzle 6–10 inches from away, spray wall with an even coat covering entire surface.
- Edges of spray pattern should slightly overlap to ensure complete coverage.
- Insert fiberglass liner (e.g. Kemlite®) into aluminium scuff and pinch between lip and wall.
- With liner laying on floor, spray liner evenly, using the same method of spray as used on the wall.
- Wait 5–10 minutes until adhesive is tacky and doesn't transfer to fingertips.
- Using 3–10 people, roll liner up wall—be sure liner is straight and flat against wall. Bond will be permanent, realignment is not possible.
- Roll with EPO Roller beginning in the center and working outward to ensure strong, permanent bond.

- Ultimate strength is achieved in 24 hours.
- Canister system will spray adequately above 60°F. Canister system should be kept in a warm area. In the event that the canister gets abnormally chilled, freezes or gives poor or sputtering spray, it should be warmed up before continued usage. Warming canister by immersion in warm water is recommended.
- Notice! Do not store at temperatures over 120°F.

CANISTER STORAGE/CHANGE OVER:

- If you choose to leave the hose and spray gun on the canister, leave the valve on the canister open. Do not disconnect the hose/gun from the canister. Close and lock the spray gun.
- To change or disconnect canister: Turn canister valve to the off position, spray out remaining adhesive left in the hose, disconnect the spray hose and gun from the canister.
- Reconnect the hose and spray gun to a new canister of adhesive and turn the canister valve to re-pressurize. Or if you are NOT connecting to a new canister, connect hose to canister of cleaner (sold separately) and spray out until liquid is clear as the indication the hose/gun is clean.

CHEMICAL TECHNICAL DATA

TYPICAL PROPERTIES	
Total Solids	30–38%
VOC Content	317 g/L
Color	Quin Blue
System Flammability	Non-Flammable
Solvent System	Non-Flammable Mixture
Dry time	2–4 mins dependent on temp & humidity
Open time	2 hours
Shelf Life	18 months from date of manufacture

PACKAGING	
650ml	Aerosol can is item EP0-CA-AA
7L	Disposable Canister
22L	Disposable Canister
108L	Returnable Canister

APPLICATION TOOLS

TOOL	PART NUMBER	CANISTER SIZES		
		7 LITER	22 LITER	108 LITER
Hoses	M140-8 (8')	x		
	M140-12 (12')		x	x
	M140-18 (18')		x	x
	M140-25 (25')			x
Spray Guns	M120 (Small Areas)	x	x	x
	M125 (Large Areas)	x	x	x
Spray Tip	11002B (6"–18" Adj. High Build Spray)	x	x	x
Roller	EP0R	x	x	x

HANDLING AND STORAGE

- Consult Safety Data Sheet prior to use.
- Do not store at temperatures over 120°F/50°C.
- Avoid exposure to direct sunlight.
- Do not store directly on concrete floor.
- Always store above 60°F/15°C
- When connected, keep valve open and hose pressurized at all times
- Always test our adhesives to determine suitability for your particular application prior to use in production

DISCLAIMER OF WARRANTY: Quin Global makes neither warranty of merchantability or fitness for any use nor any other warranty, express or implied, in the sales of its products. Buyer assumes all risk and liability for the results obtained by the use of its products, whether used singly or in combination with other products.



SAFETY DATA SHEET

Tensorgrip EP0 ZERO-FLAM Reefer Repair Adhesive Canister

1. Identification

Product identifier

Product name Tensorgrip EP0 ZERO-FLAM Reefer Repair Adhesive Canister
Product number USA

Recommended use of the chemical and restrictions on use

Application Canister Spray Adhesive

Details of the supplier of the safety data sheet

Supplier Quin Global US, Inc.
 5710 F St
 Omaha NE 68117
 (402) 731 3636
 (402) 731 1473
 marketing.us@quin-global.com

Emergency telephone number

Emergency telephone Chemtrec: 1 800 424 9300

2. Hazard(s) identification

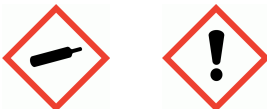
Classification of the substance or mixture

Physical hazards Press. Gas, Compressed - H280
Health hazards Acute Tox. 4 - H312 Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 STOT SE 3 - H335
Environmental hazards Aquatic Chronic 3 - H412

Human health The liquid may be irritating to eyes, respiratory system and skin. Symptoms following overexposure may include the following: Headache. Dizziness. Nausea, vomiting.

Label elements

Hazard symbols



Signal word Warning

Hazard statements H280 Contains gas under pressure; may explode if heated.
 H312 Harmful in contact with skin.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.
 H412 Harmful to aquatic life with long lasting effects.

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Precautionary statements	<p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 If on skin: Wash with plenty of water.</p> <p>P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P332+P313 If skin irritation occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p>
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Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

Trans-1,2-DCE CAS number: 156-60-5	30-60%
(E)-1-Chloro-3,3,3-trifluoropropene-1 CAS number: 102687-65-0	10-25%

4. First-aid measures

Description of first aid measures

General information	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention.
Skin Contact	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
Eye contact	Remove any contact lenses and open eyelids wide apart. Only remove contact lenses if the person is conscious, coherent and they can remove them themselves. If adhesive bonding occurs, do not force eyelids apart. Continue to rinse for at least 15 minutes. If in doubt, get medical attention promptly. Show this Safety Data Sheet to the medical personnel.

Most important symptoms and effects, both acute and delayed

Inhalation	May cause coughing and difficulties in breathing. May cause eye and respiratory system irritation. Overexposure may depress the central nervous system, causing dizziness and intoxication.
Ingestion	Aspiration hazard if swallowed. May be fatal if swallowed and enters airways. Ingestion may cause severe irritation of the mouth, the esophagus and the gastrointestinal tract. May Cause the following effects: Gastrointestinal symptoms, including upset stomach. Central nervous system depression. Nausea, vomiting. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

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Skin contact May be absorbed through the skin. Product has a defatting effect on skin. The product is irritating to eyes and skin. A single exposure may cause the following adverse effects: Dryness and/or cracking.

Eye contact Causes serious eye irritation. Burns can occur. A single exposure may cause the following adverse effects: Pain. Conjunctivitis, irritation, tearing. Prolonged or repeated exposure may cause the following adverse effects: Irritation of eyes and mucous membranes. Prolonged contact causes serious eye and tissue damage.

5. Fire-fighting measures

Special hazards arising from the substance or mixture

Specific hazards Pressurized container: Must not be exposed to temperatures above 50°C/120°F Containers can burst violently or explode when heated, due to excessive pressure build-up.

Advice for firefighters

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions For personal protection, see Section 8.

Environmental precautions

Environmental precautions Avoid discharge into drains. Contain spillage with sand, earth or other suitable non-combustible material.

Methods and material for containment and cleaning up

Methods for cleaning up Stop leak if possible without risk. Provide adequate ventilation. Avoid the spillage or runoff entering drains, sewers or watercourses. Absorb in vermiculite, dry sand or earth and place into containers. Wash thoroughly after dealing with a spillage.

7. Handling and storage

Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Avoid inhalation of vapors. Use approved respirator if air contamination is above an acceptable level. Container must be kept tightly closed when not in use.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from heat, sparks and open flame. Keep container tightly closed. Keep only in the original container. Pressurized container: Must not be exposed to temperatures above 50°C/120°F

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

Trans-1,2-DCE

Long-term exposure limit (8-hour TWA): ACGIH 200 ppm

Long-term exposure limit (8-hour TWA): OSHA 200 ppm

OSHA = Occupational Safety and Health Administration.

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Exposure controls

Protective equipment



Appropriate engineering controls

This product must not be handled in a confined space without adequate ventilation. Provide adequate general and local exhaust ventilation.

Eye/face protection

Wear chemical splash goggles.

Hand protection

Use protective gloves.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapor contact.

Hygiene measures

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

Respiratory protection

Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. If exposure levels are likely to be exceeded, use a full face mask fitted with an organic AXP3 filter for short term low level exposures. For long term or high level exposures, compressed airline breathing apparatus should be used.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Aerosol.
Color	Blue.
Relative density	1.13
Volatile organic compound	This product contains a maximum VOC content of 317 g/l.

10. Stability and reactivity

Stability	Stable at normal ambient temperatures and when used as recommended.
Conditions to avoid	Avoid contact with the following materials: Oxidizing agents. Exposure to elevated temperatures can cause product to decompose.
Hazardous decomposition products	Fire creates: Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO ₂). Nitrous gases (NO _x).

11. Toxicological information

Information on toxicological effects

Acute toxicity - dermal

ATE dermal (mg/kg)	1,100.0
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Toxicological information on ingredients.

Trans-1,2-DCE

Acute toxicity - oral

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Acute toxicity oral (LD₅₀) 2,391.0
mg/kg)

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀) 5,000.0
mg/kg)

Species Rabbit

ATE dermal (mg/kg) 5,000.0

(E)-1-Chloro-3,3,3-trifluoropropene-1

Skin corrosion/irritation

Skin corrosion/irritation Prolonged and frequent contact may cause redness and irritation.

Serious eye damage/irritation

Serious eye damage/irritation There may be irritation and redness. The eyes may water profusely.

Inhalation Prolonged or repeated exposure may cause the following adverse effects:
Coughing, chest tightness, feeling of chest pressure.

Ingestion Irritating to mouth, throat and stomach.

12. Ecological information

13. Disposal considerations

Waste treatment methods

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

14. Transport information

Air transport notes 1. <75kg, 2. <150kg

UN Number

UN No. (TDG) 3500

UN No. (ICAO) 3500

UN No. (DOT) 3500

UN proper shipping name

Proper shipping name (TDG) Chemical Under Pressure, N.O.S. (Air, Compressed)

Proper shipping name (DOT) Chemical Under Pressure, N.O.S. (Air, Compressed)

Transport hazard class(es)

TDG class 2

TDG label(s) 2.2

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Transport labels



Packing group

Packing group (International) Not applicable.

15. Regulatory information

National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).
Guidance	CHIP for everyone HSG228. Workplace Exposure Limits EH40. Safety Data Sheets for Substances and Preparations. Approved Classification and Labelling Guide (Sixth edition) L131.

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

Present.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

Present.

SARA 313 Emission Reporting

Present.

SARA (311/312) Hazard Categories

Present.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

This product does not contain any chemicals known to the state of California to cause cancer, birth defects or any other reproductive harm.

New Jersey "Right To Know" List

Present.

Pennsylvania "Right To Know" List

Present.

Inventories

Canada - DSL/NDSL

Present.

US - TSCA

Present.

16. Other information

Revision date	12/1/2017
Revision	5
Supersedes date	8/20/2015

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SDS No.	23090
Hazard statements in full	H280 Contains gas under pressure; may explode if heated. H312 Harmful in contact with skin. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H412 Harmful to aquatic life with long lasting effects.
ACA HMIS Health rating.	Moderate hazard. (2)
ACA HMIS Flammability rating.	Will not burn. (0)
ACA HMIS Physical hazard rating.	Normally stable. (0)
ACA HMIS Personal protection rating.	B

DIRECTIONS FOR USE

PRODUCT LOGO

The information in this Safety Data Sheet (SDS) is believed to be correct as of the date issued. The manufacturer MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR COURSE OF PERFORMANCE OR USAGE OF TRADE. Given the variety of factors that can affect the use and application of this product, many of which are solely within the user's knowledge and control, the user is responsible for determining whether the usage of this product is fit for a particular purpose and suitable for the user's method of use or application. It is essential that the user, not the manufacturer, evaluates this product to determine whether it is fit for a particular purpose and suitable for the user's method of use or application.