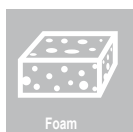


P310 PRESSURE SENSITIVE SPRAY CONTACT ADHESIVE

DATA SHEET
TensorGrip



As part of our **INDUSTRIAL** range, **P310** is a web spray adhesive designed for use in applications using the substrates listed.

PRODUCT DESCRIPTION

TensorGrip® P310 is a high solids, pressure sensitive adhesive with fast dry, long tack and high peel strength adhesive designed to bond to a vast range of substrates and maintain tackiness.

ADVANTAGES

- Aggressive tack adhesive
- Fast coverage of large areas
- Long open assembly time
- Repositionable
- One or two sided application
- 80% of final strength achieved immediately
- Full strength achieved in 24 hours
- Also bonds polyethylene and other films
- Resistant to high temperatures when applied two-sided

DIRECTIONS FOR USE

- **TensorGrip P310** is designed as a portable, self-contained spray system for field or shop applications.
- Apply adhesive to one or both surfaces to be mated, at 80% to 100% coverage. Spraying both surfaces will result in a stronger, more permanent bond.
- Allow enough time (2-4 minutes or until dry to the touch) for the adhesive to become tacky before bonding.
- Parts should be mated with as much pressure as practical. Normal coverage required with web spray pattern is approximately 80%; however, porous surfaces may need a second coat.
- Initial bond is strong enough to allow cutting or trimming immediately, although ultimate strength is achieved in 1-3 days.
- Canister system will spray adequately above 60° F. Canister system should be kept in 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 spray hose to a new canister of adhesive. OR if you are NOT connecting to a new canister, connect hose to canister of cleaning solvent (sold separately) and spray out until liquid is clear which indicates that the hose and gun is clean.

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P310 PRESSURE SENSITIVE SPRAY CONTACT ADHESIVE

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CHEMICAL TECHNICAL DATA

TYPICAL PROPERTIES

• Total Solids	24-30%
• VOC Content	425 g/L
• Color	Green, Clear; Aerosol Clear Only
• System Flammability	Non-Flammable adhesive; Flammable propellant
• Solvent System	Methylene Chloride
• Dry time	2-4 mins dependent on temp & humidity
• Open time	Long
• Shelf Life	18 months from date of manufacture

PACKAGING

• 22L	Disposable Canister
• 108L	Returnable Canister
• 216L	Returnable Canister

STORAGE

HANDLING & STORAGE

- Consult Material 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.

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SAFETY DATA SHEET

Tensorgrip P310 Pressure Sensitive Spay Contact Adhesive

1. Identification

Product identifier

Product name Tensorgrip P310 Pressure Sensitive Spay Contact Adhesive

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 Tensorgrip
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 Aerosol 2 - H223, H229 Press. Gas, Compressed - H280

Health hazards Acute Tox. 3 - H301 Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Carc. 2 - H351 STOT SE 3 - H335, H336 STOT RE 2 - H373

Environmental hazards Not Classified

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

Pictogram



Signal word

Danger

Tensorgrip P310 Pressure Sensitive Spay Contact Adhesive

Hazard statements	H223 Flammable aerosol. H280 Contains gas under pressure; may explode if heated. H301 Toxic if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure.
Precautionary statements	P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking. P211 Do not spray on an open flame or other ignition source. P251 Pressurized container: Do not pierce or burn, even after use P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P308+P313 If exposed or concerned: Get medical advice/ attention. P410+P403 Protect from sunlight. Store in a well-ventilated place.
Supplemental label information	AT(o) 15.0% of the mixture consists of ingredient(s) of unknown acute oral toxicity.
Contains	Methylene Chloride, Propane, Isobutane

Other hazards

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

3. Composition/information on ingredients

Mixtures

Methylene Chloride CAS number: 75-09-2	30-60%
Classification Acute Tox. 3 - H301 Acute Tox. 4 - H312 Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Carc. 2 - H351 STOT SE 3 - H335, H336 STOT RE 2 - H373	
Isobutane CAS number: 75-28-5	10-25%
Classification Flam. Gas 1 - H220 Press. Gas, Compressed - H280	

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Propane	10-25%
CAS number: 74-98-6	
Classification Flam. Gas 1 - H220 Press. Gas, Liquefied - H280 Acute Tox. 4 - H332 Simple Asphyxiant - USH03	

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures

Description of first aid measures

General information	Remove affected person from source of contamination. Place unconscious person on their side in the recovery position and ensure breathing can take place. 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	Get medical attention immediately. 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.
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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Symptoms following overexposure may include the following: Upper respiratory irritation. Difficulty in breathing. Drowsiness. May cause nausea, headache, dizziness and intoxication.
Ingestion	Harmful if swallowed. Prolonged or repeated exposure may cause the following adverse effects: Gastrointestinal symptoms, including upset stomach. Diarrhea.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	Risk of serious damage to eyes. Symptoms following overexposure may include the following: Irritation and redness, followed by blurred vision.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Tensorgrip P310 Pressure Sensitive Spay Contact Adhesive

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. Vapors are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.

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. No smoking, sparks, flames or other sources of ignition near spillage.

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. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. 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 contact with skin and eyes. Keep away from heat, sparks and open flame. 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. Use explosion proof electric equipment. Avoid discharge into drains or watercourses or onto the ground.

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

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure Controls/personal protection

Control parameters

Occupational exposure limits

Methylene Chloride

Long-term exposure limit (8-hour TWA): ACGIH 50 ppm
A3

Short-term exposure limit (15-minute): OSHA 125 ppm
Long-term exposure limit (8-hour TWA): OSHA 25 ppm

Isobutane

Tensorgrip P310 Pressure Sensitive Spay Contact Adhesive

Long-term exposure limit (8-hour TWA): ACGIH 1000 ppm

Long-term exposure limit (8-hour TWA): NIOSH: National Institute of Occupational Safety and Health 800 ppm 1900 mg/m³

Propane

Long-term exposure limit (8-hour TWA): NIOSH: National Institute of Occupational Safety and Health 1800 mg/m³ 1000 ppm

Long-term exposure limit (8-hour TWA): OSHA 1800 ppm 1000 mg/m³

ACGIH = American Conference of Governmental Industrial Hygienists.

A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.

OSHA = Occupational Safety and Health Administration.

Exposure controls

Protective equipment



Appropriate engineering controls

This product must not be handled in a confined space without adequate ventilation. Avoid inhalation of vapors and spray/mists. As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapor or mist.

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

If exposure levels are likely to be exceeded, use a half face mask fitted with an organic vapor filter for short term low level exposures. For long term or high level exposures, a supplied air respirator should be used.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Liquid.
Color	Green.
Odor	Sweetish. Pungent.
Flash point	~ -156°F Not specified.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 1.8 g/100 g Upper flammable/explosive limit: 9.5 g/100 g
Vapor density	~ 9.2
Relative density	~ 1.2
Solubility(ies)	Negligibly soluble in water
Volatile organic compound	This product contains a maximum VOC content of 425 g/l.

10. Stability and reactivity

Tensorgrip P310 Pressure Sensitive Spay Contact Adhesive

Stability	Stable at normal ambient temperatures and when used as recommended.
Conditions to avoid	Avoid heat, flames and other sources of ignition. Avoid contact with the following materials: Oxidizing agents. Reducing agents.
Materials to avoid	Acids. Alkalies. Oxidizing materials. Reducing agents.
Hazardous decomposition products	Fire creates: Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO ₂). Hydrogen chloride (HCl). Nitrous gases (NO _x).

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 170.0

Acute toxicity - dermal

ATE dermal (mg/kg) 2,200.0

Acute toxicity - inhalation

ATE inhalation (gases ppm) 30,000.0

ATE inhalation (vapours mg/l) 73.33333333

Toxicological information on ingredients.

Methylene Chloride

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,000.0

Species Rat

ATE oral (mg/kg) 100.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rat

ATE dermal (mg/kg) 1,100.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 52.0

Species Rat

ATE inhalation (vapours mg/l) 11.0

Carcinogenicity

Carcinogenicity Cancinogenicity - rat - inhalation Limited evidence of carcinogenicity in animal studies

Target organ for carcinogenicity Tumorigenic: Carcinogenic by RTECS criteria. Endocrine: Tumors

Tensorgrip P310 Pressure Sensitive Spay Contact Adhesive

IARC carcinogenicity IARC Group 2B Possibly carcinogenic to humans.

NTP carcinogenicity Reasonably anticipated to be a human carcinogen.

Specific target organ toxicity - single exposure

STOT - single exposure May cause respiratory irritation. May cause drowsiness or dizziness

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Inhalation - May cause damage to organs through prolonged or repeated exposure
-Central nervous system Oral - May cause damage to organs through prolonged or repeated exposure
-Liver, blood.

General information RTECS: PA8050000

Isobutane

Toxicological effects No information available.

Carcinogenicity

Carcinogenicity Does not contain any substances known to be carcinogenic.

Inhalation Suffocation (asphyxiant) hazard

Skin Contact Spray will evaporate and cool rapidly and may cause frostbite or cold burns if in contact with skin.

Eye contact Spray will evaporate and cool quickly and may cause frostbite or cold burns if in contact with skin.

Propane

Acute toxicity - inhalation

Acute toxicity inhalation 1,442.0
(LC₅₀ gases ppmV)

Species Rat

Acute toxicity inhalation 1,442.0
(LC₅₀ vapours mg/l)

Species Rat

ATE inhalation (gases 4,500.0
ppm)

ATE inhalation (vapours 11.0
mg/l)

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

Tensorgrip P310 Pressure Sensitive Spay Contact Adhesive

Air transport notes Cargo aircraft only. <75kg

UN Number

UN No. (ICAO) 3501

UN No. (DOT) 3501

UN proper shipping name

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

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

Transport hazard class(es)

DOT hazard class 2.1

Transport labels



Packing group

Not applicable.

15. Regulatory information

Inventories

US - TSCA

Present.

Isobutane

Methylene Chloride

16. Other information

Revision date 11/15/2017

Revision 4

Supersedes date 4/3/2017

SDS No. 20361

Hazard statements in full

H223 Flammable aerosol.
 H280 Contains gas under pressure; may explode if heated.
 H301 Toxic if swallowed.
 H312 Harmful in contact with skin.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H351 Suspected of causing cancer.
 H373 May cause damage to organs through prolonged or repeated exposure.
 USH03 May displace oxygen and cause rapid suffocation

ACA HMIS Health rating. Moderate hazard. (2)

ACA HMIS Flammability rating. Extremely flammable. (4)

Tensorgrip P310 Pressure Sensitive Spay Contact Adhesive

ACA HMIS Physical hazard rating. Normally stable. (0)

ACA HMIS Personal protection rating. B

The information in this Material Safety Data Sheet (MSDS) 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 manufacturer of this product is fit for a particular purpose and suitable for users' method of use or application. It is essential that the user evaluate this product, not the manufacturer, to determine whether it is fit for a particular purpose and suitable for users' method of use or application