# P322 FAST DRY PRESSURE SENSITIVE ADHESIVE













As part of our INDUSTRIAL range, P322 is a web spray adhesive designed for use in applications using the substrates listed.

# PRODUCT DESCRIPTION

**TensorGrip P322** is an aggressive and fast-drying pressure sensitive adhesive designed to bond to a vast range of substrates and maintain tackiness.

#### **ADVANTAGES**

- Very fast drying
- Long lasting high tack (pressure sensitive)
- Moisture and weather-resistant bond

- Will not attack polystyrene
- Full strength achieved in 24 hours
- No ODS (ozone depleting substances)

# DIRECTIONS FOR USE

- TensorGrip P322 is designed as a portable, selfcontained spray system for field or shop applications.
- Apply adhesive to both surfaces to be mated, at 80% to 100% coverage.
- 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.







# P322 FAST DRY DATA SHEET PRESSURE SENSITIVE ADHESIVE Tensorum

# CHEMICAL TECHNICAL DATA

#### **TYPICAL PROPERTIES**

Total Solids 26-32%
 VOC Content 552 q/L

Color
 Red, Clear, Green, Blue; Aerosols Green Only
 System Flammability
 Flammable Adhesive; Flammable Propellant

Solvent System Flammable

Dry time 2-4 mins dependent on temp & humidity

Open time Long

Shelf Life 18 months from date of manufacture

#### **PACKAGING**

• 650 ml Aerosol Can

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

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# SAFETY DATA SHEET Tensorgrip P322 Fast Dry Pressure Sensitive Adhesive

#### 1. Identification

**Product identifier** 

Product name Tensorgrip P322 Fast Dry Pressure Sensitive 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 Flam. Aerosol 1 - H222 Press. Gas, Compressed - H280

Health hazards Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 STOT SE 3 - H335, H336

**Environmental hazards** Aquatic Chronic 2 - H411

**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

Hazard statements H222 Extremely flammable aerosol.

H280 Contains gas under pressure; may explode if heated.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

**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

P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P412 Do not expose to temperatures exceeding 50°C/122°F.

Supplemental label

information

AT(d) 31.4% of the mixture consists of ingredient(s) of unknown acute dermal toxicity. AT(o) 31.4% of the mixture consists of ingredient(s) of unknown acute oral toxicity.

Contains Dimethyl Ether, Pentane, Acetone

#### Other hazards

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

#### 3. Composition/information on ingredients

#### **Mixtures**

Dimethyl Ether 30-60%

CAS number: 115-10-6

#### Classification

Flam. Gas 1 - H220

Press. Gas, Liquefied - H280

Acute Tox. 4 - H332

Skin Irrit. 2 - H315

Eye Irrit. 2B - H320

STOT SE 3 - H335, H336

Pentane 30-60%

CAS number: 78-78-4 M factor (Acute) = 1

#### Classification

Flam. Liq. 1 - H224

Eye Irrit. 2A - H319

STOT SE 3 - H336

Asp. Tox. 1 - H304

Aquatic Chronic 2 - H411

Acetone 1-5%

CAS number: 67-64-1

#### Classification

Flam. Liq. 2 - H225

Acute Tox. 4 - H302

Acute Tox. 4 - H312

Acute Tox. 4 - H332

Skin Irrit. 2 - H315

Eye Irrit. 2A - H319

STOT SE 3 - H336

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

**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.

**Skin contact** May be absorbed through the skin. Product has a defatting effect on skin. The liquid 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

#### **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

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

for firefighters

Special protective equipment 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

#### Dimethyl Ether

Long-term exposure limit (8-hour TWA): WEEL:US.AIHA = Workplace Environmental Exposure Level Guides 1000 ppm

#### Pentane

Long-term exposure limit (8-hour TWA): ACGIH 600 ppm

#### Acetone

Long-term exposure limit (8-hour TWA): ACGIH 500 ppm Short-term exposure limit (15-minute): ACGIH 750 ppm

Long-term exposure limit (8-hour TWA): OSHA 1000 ppm 2400 mg/m<sup>3</sup>

Ceiling exposure limit: NIOSH: National Institute of Occupational Safety and Health 250 ppm 590 mg/m³ vapour

ACGIH = American Conference of Governmental Industrial Hygienists. A4 = Not Classifiable as a Human Carcinogen. 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 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 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 Aerosol.

Color Clear, Green.

Odor Organic solvents.

**Initial boiling point and range** Not determined.

Flash point -41°C/-42°F Not specified.

Upper/lower flammability or

explosive limits

Lower flammable/explosive limit: 3.4 g/100 g Upper flammable/explosive limit: 18 g/100 g

Vapor pressure Not determined.

Vapor density Not determined.

Relative density .7087

Solubility(ies) Negligibly soluble in water

Volatile organic compound This product contains a maximum VOC content of 552.55 g/l.

10. Stability and reactivity

Stability Stable at normal ambient temperatures and when used as recommended.

Revision date: 4/4/2017 Revision: 7 Supersedes date: 4/4/2017

# Tensorgrip P322 Fast Dry Pressure Sensitive Adhesive

**Conditions to avoid** Avoid heat, flames and other sources of ignition. Avoid contact with the following materials:

Oxidizing agents. Reducing agents.

Hazardous decomposition

Fire creates: Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO2).

**products** Hydrogen chloride (HCI). Hydrocarbons. Aldehydes.

#### 11. Toxicological information

#### Information on toxicological effects

Acute toxicity - oral

**ATE oral (mg/kg)** 7,622.22

Acute toxicity - dermal

**ATE dermal (mg/kg)** 16,768.89

Acute toxicity - inhalation

ATE inhalation (gases ppm) 9,000.0
ATE inhalation (vapours mg/l) 244.44

Toxicological information on ingredients.

### **Dimethyl Ether**

Acute toxicity - inhalation

Acute toxicity inhalation

(LC<sub>50</sub> gases ppmV)

Species Rat

ATE inhalation (gases

ppm)

4,500.0

308.5

Carcinogenicity

**Carcinogenicity** Does not contain any substances known to be carcinogenic.

Specific target organ toxicity - single exposure

STOT - single exposure May cause respiratory irritation. Central nervous system depression. Skin and eye

irritation.

Aspiration hazard

**Aspiration hazard** No data available.

Medical Symptoms Central nervous system depression. Frostbite. Respiratory system irritation. Skin

irritation. Eye irritation.

Pentane

Acute toxicity - oral

**ATE oral (mg/kg)** 100.0

Acute toxicity - dermal

ATE dermal (mg/kg) 1,100.0

Acute toxicity - inhalation

Acute toxicity inhalation

(LC50 vapours mg/l)

1,280.0

**Species** Rat

ATE inhalation (vapours

mg/l)

Serious eye damage/irritation

Serious eye Irritation of eyes is assumed.

11.0

damage/irritation

Germ cell mutagenicity

Genotoxicity - in vitro Ames Test Results: Negative.

Specific target organ toxicity - single exposure

STOT - single exposure May cause drowsiness or dizziness

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Entry into the lungs following ingestion or vomiting may cause chemical

pneumonitis.

**General information** Absorbtion of large quantities may cause: Dizziness. Euphoria. Agitation.

Convulsions. Narcosis.

Acetone

Acute toxicity - oral

Acute toxicity oral (LD₅o

mg/kg)

5,800.0

**Species** Rat

500.0 ATE oral (mg/kg)

Acute toxicity - dermal

Acute toxicity dermal (LD<sub>50</sub> 20,000.0

mg/kg)

**Species** Rabbit

ATE dermal (mg/kg) 1,100.0

Acute toxicity - inhalation

Acute toxicity inhalation

76.0

(LC<sub>50</sub> dust/mist mg/l)

**Species** Rat

ATE inhalation (vapours 11.0

mg/l)

Specific target organ toxicity - single exposure

STOT - single exposure May cause drowsiness or dizziness

Inhalation Mucosal irritations. Absorption.

Ingestion Irritating. May cause nausea, stomach pain and vomiting. Aspiration hazard if

swallowed. Entry into the lungs following ingestion or vomiting may cause chemical

pneumonitis.

Skin Contact This product is moderately irritating. May be absorbed through the skin. Repeated

exposure may cause skin dryness or cracking.

**Eye contact** This product is strongly irritating. Risk of corneal clouding.

Route of exposure Inhalation Skin and/or eye contact

Target Organs Eyes

#### 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 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

#### **US Federal Regulations**

#### SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

The following ingredients are listed or exempt:

Pentane

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

Acetone

Final CERCLA RQ: 5000(2270) pounds (Kilograms)

#### SARA 313 Emission Reporting

The following ingredients are listed or exempt:

Pentane

#### SARA (311/312) Hazard Categories

Present.

Dimethyl Ether

Acute

Health hazard

Pressure

Fire

Hazard

Pentane

All the ingredients are listed or exempt.

Acetone

Acute

Chronic

Health hazard

Fire

#### **US State Regulations**

#### California Proposition 65 Carcinogens and Reproductive Toxins

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

#### Massachusetts "Right To Know" List

Present.

Dimethyl Ether

Pentane

Acetone

#### Rhode Island "Right To Know" List

Acetone

Present.

## Minnesota "Right To Know" List

Present.

Dimethyl Ether

Acetone

#### New Jersey "Right To Know" List

Present.

Dimethyl Ether

Acetone

#### Pennsylvania "Right To Know" List

Present.

Dimethyl Ether

Pentane

Acetone

#### Inventories

#### Canada - DSL/NDSL

DSL

Dimethyl Ether

Pentane

Acetone

#### **US-TSCA**

Present.

Dimethyl Ether

Pentane

Acetone

#### 16. Other information

Revision date 4/4/2017

Revision 7

 Supersedes date
 4/4/2017

 SDS No.
 20591

Hazard statements in full

H220 Extremely flammable gas.

H222 Extremely flammable aerosol.

H224 Extremely flammable liquid and vapor. H225 Highly flammable liquid and vapor.

H280 Contains gas under pressure; may explode if heated.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H320 Causes eye irritation. H332 Harmful if inhaled.

H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.

H411 Toxic to aquatic life with long lasting effects.

ACA HMIS Health rating. Moderate hazard. (2)

**ACA HMIS Flammability** 

rating.

Ignites easily. (3)

**ACA HMIS Physical hazard** 

rating.

Normally stable. (0)

ACA HMIS Personal protection rating.

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