



## SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

### 1.1 Product identifier

Product name: ADHESIVO DE POLIURETANO TACSA

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Multi-purpose adhesive

### 1.3 Details of the supplier of the Safety Data Sheet

#### TECNOLOGÍA ARGENTINA EN CINTAS S.A. (TACSA)

Av. Felipe Pastre 1790, (B1686HRD) Hurlingham, Buenos Aires, Argentina.

P: +54 11 7700 1900 - Web: [www.tacsa.com.ar](http://www.tacsa.com.ar)

### 1.4 Emergency telephone number

Emergency phone (24 hours): CIQUIME 0800 222 2933 (from Argentina)  
+54 11 4552 8747 (other countries)

## SECTION 2 – HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

#### Classification according to the Globally Harmonized System

Acute toxicity, oral (Category 4)

Acute toxicity, inhalation (Category 4)

Acute toxicity, dermal (Category 4)

Aspiration hazard (Category 1)

Short-term (acute) aquatic hazard (Category 3)

### 2.2 Label elements

#### Pictogram:



DANGER

#### Signal word:

#### Hazard statements:

H302 - Harmful if swallowed.

H304 - May be fatal if swallowed and enters airways.

H312 - Harmful in contact with skin.

H332 - Harmful if inhaled.

H402 - Harmful to aquatic life.

#### Precautionary statements:

P261 - Avoid breathing fume, mist, vapours and spray.

P264 - Wash thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

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Replaces:

Created: CIQUIME

Revised:

TECNOLOGÍA ARGENTINA EN CINTAS S.A. (TACSA)

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P301 + P310 + P330 - IF SWALLOWED: Rinse mouth. Call a POISON CENTER or a doctor.

P302 + P352 - IF ON SKIN: Wash with plenty of water.

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P362 + P364 - Take off contaminated clothing and wash it before reuse.

P501 - Dispose of contents and/or container in accordance with national and international regulations.

### 2.3 Other hazards

There are no other additional hazards of consideration in the classification.

## SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

### 3.1 Substance

Does not apply.

### 3.2 Mixtures

IDENTIFICATION NAME	CAS No.	Weight %	CLASSIFICATION
Urethane prepolymer	proprietary	> 30	Not classified
Methylenediphenyl diisocyanate	26447-40-5	< 40	Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2A; Resp. Sens. 1A; Skin Sens. 1A; Carc. 2; STOT Single Exp. 3; STOT Rep. Exp. 2
Plasticizer	proprietary	< 20	Unknown

## SECTION 4 - FIRST AID MEASURES

### 4.1 Description of first aid measures

General advice:	Avoid exposure to the product taking appropriate protective measures. Get medical advice.
Inhalation:	For those providing assistance, avoid exposure. Use proper protection if necessary. Move victim and get fresh air. Keep calm. If not breathing, give artificial respiration. Be alert to allergies or anaphylaxis. Get medical advice.
Skin contact:	Wash immediately after contact with soap and water for at least 15 minutes. May be used corn oil or a polyglycol-based skin cleanser. Remove contaminated clothing and wash before reuse.
Eye contact:	Immediately flush with water for at least 15 minutes, holding eyelids apart to ensure that all eye and lid tissues rinsed. Washing eyes within several seconds is essential to achieve maximum effectiveness. If you have contact lenses, remove them after the first 5 minutes, then continue rinsing eye. Get medical advice.
Ingestion:	DO NOT INDUCE VOMITING. Rinse mouth with water. Never give anything by

mouth to an unconscious person. Get medical advice.  
If vomiting occurs spontaneously, place victim on side to reduce the risk of aspiration.

#### 4.2 Most important symptoms and effects, both acute and delayed

Inhalation: may cause irritation to eyes, lungs, and mucous membranes. Repeated inhalations of small amounts of vapor may cause respiratory sensitization and asthma.

Skin Contact: may cause irritation and dermatitis.

Eye Contact: may cause irritation.

Ingestion: may cause nausea, vomiting, and stomach upset.

#### 4.3 Indication of any immediate medical attention and special treatment needed

Medical advice: Provide symptomatic treatment. May cause allergic reactions. For more information, contact a Poison Control Center.

## SECTION 5 – FIREFIGHTING MEASURES

### 5.1 Extinguishing media

Use dry chemical, foam, sand or carbon dioxide (CO<sub>2</sub>). Use the product according to surrounding materials. DO NOT USE water jets as it may spread fire.

### 5.2 Special hazards arising from the substance or mixture

The liquid will not ignite easily.

### 5.3 Advice for firefighters

#### 5.3.1 Firefighting instructions

Spray containers and/or tanks with water to keep them cool.

Continue cooling with water after fire is out.

Prevent water used for fire control from entering watercourses, drains or springs.

#### 5.3.2 Protective clothing

Use SCBA and structural protection clothing for firefighters.

#### 5.3.3 Hazardous combustion products

In case of fire, it can release irritating and/or toxic fumes and gases, such as carbon monoxide, nitrogen oxides, isocyanate vapors and mists, hydrocyanic acid and other substances derived from incomplete combustion.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

#### 6.1.1 For non-emergency personnel

Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate personnel to a ventilated area.

#### 6.1.2 For emergency responders

Wear positive pressure self-contained breathing apparatus and fire-fighting protective clothing (includes fire-fighting helmet, jacket, pants, boots, and gloves). Avoid contact with the product during operations.

For non-fire spills or post-fire cleanup phase, wear chemical protective clothing specifically recommended by the manufacturer.

Eliminate all ignition sources (no smoking, do not use flares, sparks or flames in immediate area). Stop leak if you can do it without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Foam can be used to reduce vapours. Do not allow reuse of spilled product.

### 6.2 Environmental precautions

Contain spilled liquid with a dam or barrier. Prevent entry into navigable waterways, sewers, basements or uncontrolled confined areas.

### 6.3 Methods and material for containment and cleaning up

Cover the spill with decontamination solution for at least 10 minutes. The typical solution contains 20% of surfactant / detergent with 80% water; or a solution with 0-10% ammonia, 2-5% detergent and water to 100%. Collect the liquid product with sand, vermiculite, earth or inert absorbent material and then completely clean the affected area. Dispose of the waste properly. Dispose of the water and collected waste in marked containers for disposal as chemical waste.

### 6.4 Reference to other sections

See Section 8 - Exposure Controls and Personal Protection, and Section 13 – Disposal considerations.

## SECTION 7 – HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Do not eat, drink or smoke during handling. Persons with a history of skin sensitisation problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Avoid contact with eyes, skin and clothing. Wash arms, hands, and nails after handling. The use of gloves is recommended. Keep stocks of decontaminant readily available. Facilitate access to safety showers and eyewash emergency.

### 7.2 Conditions for safe storage, including any incompatibilities

Storage conditions:

Store in a clean, dry, well-ventilated area. Protect from sunlight. Keep containers closed. Contact with water or moisture may cause the release of carbon dioxide which may pressurize containers. Open them carefully as content may be under pressure. Store in a dry place at temperatures between 18 and 40 °C. Keep containers tightly closed. The material is hygroscopic, moisture can cause the material to harden making it unusable.

Packaging materials:

Supplied by the manufacturer.

Incompatibilities:

Keep away from Mineral acids, organic acids, alcohols, amines, azo compounds, hydrazines, caustics, cyanides, organic sulfides, metals, nitrides, organic peroxides and hydroperoxides, phenols, strong oxidants, strong reducing agents and aqueous mixtures.

### 7.3 Specific end use(s)

Multi-purpose adhesive

## SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

TLV-TWA (ACGIH):	0.005ppm; diisocyanates; methylene diphenyl diisocyanate
TLV-C (ACGIH):	0.01ppm; diisocyanates; methylene diphenyl diisocyanate
PEL (OSHA):	N/D
IDLH (NIOSH):	N/D

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Keep workplace ventilated. The normal routine ventilation is usually adequate. Local hoods should be used for operations that produce or release large amounts of product. In low or confined areas should be provided mechanical ventilation. Provide showers and eyewash stations.

#### 8.2.2. Individual protection measures, such as personal protective equipment

Eye and face protection: When necessary, wear safety glasses (complying with EN 166).

Skin protection: When necessary, wear impermeable protective nitrile gloves (complying with standards EN 374), clothes and safety footwear resistant to chemicals.

Respiratory protection: When necessary, wear an organic gas or steam (A) respirator. Special attention to oxygen levels in the air should be paid.  
If large releases occur, wear self-contained breathing apparatus (SCBA).

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

Appearance:	Viscous liquid.
Colour:	Colorless to amber.
Odour:	Slightly irritating.
Odour threshold:	N/D
pH:	6 - 7
Melting point:	N/D
Boiling point:	Decomposes before boiling.
Evaporation rate:	< 1 (BuAc = 1)
Flammability:	The product is not flammable.
Flash point:	127°C (260,6°F)
Explosive limits:	0,9%
Auto-ignition temperature:	N/D
Decomposition temperature:	> 260°C (500°F)

Vapour pressure (20°C):	N/D
Vapour density (air=1):	N/D
Relative density (20°C):	1,0 - 1,2 g/cm <sup>3</sup>
Solubility (20°C):	Soluble in aromatic and aliphatic solvents. Insoluble in alcohols and water.
Partition coefficient (logK <sub>o/w</sub> ):	N/D
Viscosity (cSt, 40°C):	1200 - 7000 cP
Henry constant (20°C):	N/D
Explosive properties:	Not explosive. This study is not required because in the molecule no chemical groups are associated with explosive properties.
Oxidizing properties:	This study is not necessary because the substances present in the product, due to their chemical structures, are incapable of reacting exothermically with combustible materials.

## 9.2 Other information

Other properties: None.

## SECTION 10 – STABILITY AND REACTIVITY

### 10.1. Reactivity

Reactions or breakdown of the product are not expected to occur under normal storage conditions. Does not contain organic peroxides. It is not corrosive to metals. Reacts with water.

### 10.2. Chemical stability

The product is chemically stable under recommended conditions.

### 10.3. Possibility of hazardous reactions

Hazardous polymerization is not expected.

### 10.4. Conditions to avoid

Avoid high temperatures and moisture.

### 10.5. Incompatible materials

Keep away from Mineral acids, organic acids, alcohols, amines, azo compounds, hydrazines, caustics, cyanides, organic sulfides, metals, nitrides, organic peroxides and hydroperoxides, phenols, strong oxidants, strong reducing agents and aqueous mixtures.

### 10.6. Hazardous decomposition products

Reaction with water generates heat, carbon dioxide and ureas. If heated, it can give off irritating and toxic vapours. In case of fire, see Section 5.

## SECTION 11 – TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity:

There is no information about the toxicity of the product, but acute toxicity estimations are presented.

ATE-LD50 oral (calc.): 300 - 2000 mg/kg

ATE-LD50 der (calc.): 1000 - 2000 mg/kg

ATE-LC50 inh. (4 hs., calc.): 1 - 5 mg/l

Dermal irritation: reddening of the skin in prolonged exposures

Eye irritation: Causes moderate irritation. May cause a slight transient (temporary) injury to the cornea.

Skin sensitivity: Skin contact may cause an allergic skin reaction.

Respiratory Sensitivity: May cause respiratory sensitization in sensitive individuals.

#### **Carcinogenicity, mutagenicity and reproductive toxicity:**

Carcinogenicity: No data known.

Mutagenicity: No data known.

Repr. Tox.: No data known.

Teratogenicity: No data known.

#### **Acute and chronic effects:**

Routes of exposure: Inhalation, skin and eye contact.

Inhalation: may cause irritation to eyes, lungs, and mucous membranes. Repeated inhalations of small amounts of vapor may cause respiratory sensitization and asthma.

Skin Contact: may cause irritation and dermatitis.

Eye Contact: may cause irritation.

Ingestion: may cause nausea, vomiting, and stomach upset.

STOT-SE: No data known.

STOT-RE: No data known.

Aspiration: The product is toxic by aspiration and its viscosity makes it possible to incorporate it by this route, which is why it is classified as dangerous by aspiration.

## SECTION 12 – ECOLOGICAL INFORMATION

### 12.1. Toxicity

In MDI, the toxicity measured is that of the hydrolyzed product, normally under conditions of maximum production of soluble substances. The product is practically non-toxic to aquatic organisms on an acute basis.

(LC50/EC50/EL50/LL50 >100 mg/l for most sensitive species tested.

LC50 (E. fetida, 14 d): > 1000 mg/l

PNEC (water): N/D

PNEC (sea): N/D

PNEC-STP: N/D

### 12.2. Persistence and degradability

BIODEGRADABILITY (estimated): In the aquatic and terrestrial environments, the material reacts with water to form insoluble polyureas that appear to be stable. In atmospheric environments, it is estimated that the material will have a short topospheric life, based on calculations and by analogy with similar diisocyanates.

**12.3. Bioaccumulative potential**Log K<sub>ow</sub>: N/D

BIOCONCENTRATION FACTOR - BCF (OCDE 305): No data known.

**12.4. Mobility in soil**

HENRY CONSTANT (20°C): N/D

LogKoc: N/D Mobility in the aquatic environment and in soil should be limited due to reaction with water, forming mainly insoluble polyureas..

**12.5. Results of PBT and vPvB assessment**

This product does not meet the PBT criteria of Annex XIII of REACH. This product does not meet the vPvB criteria in Annex XIII of REACH.

**12.6. Other adverse effects**

AOX and metal containing: Does not contain organic halogens nor metals.

**SECTION 13 – DISPOSAL CONSIDERATIONS**

Dispose of excess product and empty containers according to current legislation for the protection of the environment and hazardous waste. Disposal procedure: incineration.

**SECTION 14 – TRANSPORT INFORMATION****14.1 Transport by land**

Proper Shipping Name:	NOT CLASSIFIED AS A DANGEROUS GOODS
UN/ID Number:	NOT CLASSIFIED AS A DANGEROUS GOODS
Hazard class:	NOT CLASSIFIED AS A DANGEROUS GOODS
Packing group:	NOT CLASSIFIED AS A DANGEROUS GOODS
Hazard identification number:	NOT CLASSIFIED AS A DANGEROUS GOODS
Excepted and limited quantity:	NOT CLASSIFIED AS A DANGEROUS GOODS
Special provisions:	NOT CLASSIFIED AS A DANGEROUS GOODS

**14.2 Air transport (ICAO/IATA)**

Proper Shipping Name:	NOT CLASSIFIED AS A DANGEROUS GOODS
UN/ID Number:	NOT CLASSIFIED AS A DANGEROUS GOODS
Hazard class:	NOT CLASSIFIED AS A DANGEROUS GOODS
Packing group:	NOT CLASSIFIED AS A DANGEROUS GOODS
PAX and Cargo Packing instructions:	NOT CLASSIFIED AS A DANGEROUS GOODS
Cargo Packing instructions:	NOT CLASSIFIED AS A DANGEROUS GOODS
ERC:	NOT CLASSIFIED AS A DANGEROUS GOODS
Special provisions:	NOT CLASSIFIED AS A DANGEROUS GOODS



**14.3 Sea transport (IMO)****IMDG Code**

Proper Shipping Name:	NOT CLASSIFIED AS A DANGEROUS GOODS
UN/ID N°:	NOT CLASSIFIED AS A DANGEROUS GOODS
Hazard class:	NOT CLASSIFIED AS A DANGEROUS GOODS
Packing group:	NOT CLASSIFIED AS A DANGEROUS GOODS
EMS:	NOT CLASSIFIED AS A DANGEROUS GOODS
Stowage and manipulation:	NOT CLASSIFIED AS A DANGEROUS GOODS
Segregation:	NOT CLASSIFIED AS A DANGEROUS GOODS
Marine pollutant:	NO
Proper Shipping Name:	NOT CLASSIFIED AS A DANGEROUS GOODS

**SECTION 15 – REGULATORY INFORMATION**

Not dangerous for the ozone layer.  
Volatile organic compounds (VOC's): N/D

**Regulation**

Globally Harmonized System of Classification and Labelling of Chemicals, fifth revised edition, 2013 (GHS 2013 - 'ST / SG / AC 10/30 / Rev.5'). The fifth edition is taken into consideration because it is the one valid for Argentina according to Resolution 801/2015 of the SRT. In any case, the information is contrasted with Revision 7 ('ST / SG / AC 10/30 / Rev.7') and clarification is made if required.

Agreement on Transport of Dangerous Products within the MERCOSUR, MERCOSUR\CMC\DEC N° 2/94. European Agreement on the International Carriage of Dangerous Goods by Road (ADR 2021) and amendments.

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID 2021) and amendments.

International Maritime Dangerous Goods Code (IMDG 2020 - Amendment 40-20), International Maritime Organization (IMO).

Regulations of the International Air Transport Association (IATA 63 ed., 2022) on the transport of dangerous goods by air.

**SECTION 16 – OTHER INFORMATION****16.1 Abbreviations and acronyms**

ACGIH: American Conference of Governmental Industrial Hygienists.	N/D: no information available at the time of making the SDS.
AOX: Halogenated organic components	NIOSH: National Institute for Occupational Safety and Health
BCF: Bioconcentration factor	OECD: Organization for Economic Cooperation and Development
CAS: Chemical Abstract Service	PEL: Permissible Exposure Limit.
EC50: Mean effective concentration	PNEC: Predicted no-effect concentration
IC50: Mean inhibitory concentration.	REACH: Registration, Evaluation, Authorization and Restriction of chemical substances and mixtures of the European Union
LC50: Mean lethal concentration.	REL: Recommended Exposure Limit.
LD50: Mean lethal dose	
ATE: Acute toxicity estimation	
IARC: International Agency for Research on Cancer.	

IDLH: Concentration immediately dangerous to life or health.  
 INSHT: National Institute for Safety and Hygiene at Work.  
 N/A: the property is not applicable due to the physical, chemical and toxicological characteristics of the product.

**DENOMINATION OF GHS CLASSES**

Aer.: aerosols

Oxid. Gas: oxidizing gas

Compressed gas: compressed gas

Dissolved gas: dissolved gas

Flam. Gas: flammable gas.

Liquefied Refr. Gas: refrigerated liquefied gas

Liquefied gas: liquefied gas

Oxid. Liquid: oxidizing liquid

Flam. Liquid: flammable liquid

Pyr. Liq.: pyrophoric liquid

Met. Corr.: corrosive for metals

Org. Perox.: organic peroxide

Water React. Flam. Gas: substance reactive with water, which emits flammable gases

Oxid. Solid: oxidizing solid

Flam. Solid: flammable solid

Asp Tox.: aspiration toxicity

Carc.: carcinogenicity

GHS: Globally Harmonized System of Classification and Labeling of Chemical Products.

STEL: Short-term Exposure Limit

TLV: Threshold Limit Value

TWA: Time-weighted average

| : Changes with respect to the previous revision.

Skin Corr./Irrit.: Corrosion / skin irritation

Eye Damage/Irrit.: Serious eye damage / eye irritation

Lac.: toxic for reproduction - lactation

Muta.: mutagenicity

Repr.: toxic for reproduction

Sens skin: skin sensitizer

Resp. Sens.: respiratory sensitizer

STOT Rep. Exp.: Specific target organ toxicity - repeated exposure

STOT Single Exp.: Specific target organ toxicity - single exposure

Acute Tox.: Acute toxicity

Aquatic Acute: Hazardous to the aquatic environment - acute hazard

Aquatic Chronic: Hazardous to the aquatic environment - chronic danger

Ozo.: Dangerous for the ozone layer.

**16.2 Key literature references and sources for data**

International Agency for Research on Cancer (IARC), carcinogen classification.

European Agreement on the International Carriage of Dangerous Goods by Road (ADR 2019) and amendments.

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID 2019) and amendments.

International Maritime Dangerous Goods Code (IMDG 2018 - Amendment 39-18), International Maritime Organization (IMO).

IBC Code 2016, IMO, IMO Resolution MSC.369 (93).

Regulations of the International Air Transport Association (IATA 60 ed., 2019) on the transport of dangerous goods by air.

**16.3 Classification and procedure used to derive the classification for mixtures**

The classification was performed based on chemical analogues and product information compiled by CIQUIME.

SECTION 2: classification by analogy with other products, and based on product data in CIQUIME database.

SECTION 9: product data.

SECTION 11 and 12: calculation of acute toxicity estimation according to GHS, product data and bibliographic data.

Change's control: v.1 - Adaptation to the GHS.

**16.4 Disclaimer**

This information only concerns the above mentioned product and is not to be valid for other (s) product (s) or in any process. This safety data sheet provides health and safety information. The information is to our best knowledge, correct and complete. It is given in good faith but without

warranty. The product should be used in applications consistent with our product literature. Individuals handling this product should be in-formed of the recommended safety precautions and should have access to this information. For any other use, exposure should be evaluated so that they can implement appropriate handling practices and training programs to ensure safe operations in the workplace.

It remains the user's own responsibility that this information is appropriate and complete for the special use of this product.

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Replaces:			
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