SATLON 105

CARTELL

PRODUCT SPECIFICATION

SATLON 105

Cyanoacrylate Adhesive

For Rubber, Plastic & Metal

DESCRIPTION

SATLON 105 is a normal type Cyanoacrylate adhesive with fast setting, high flow ability, and good penetration characteristics. It has been specially formulated to achieve the strongest possible bond between well-mated, non-porous surfaces, such as rubber, metals, plastics, glass, etc. SATLON 105 is a one-component, solvent-free system and does not require the use of a catalyst, heat or clamps. When a thin layer of SATLON 105 applied between two surfaces comes into contact with atmospheric moisture,, a rapid polymerization occurs producing the ultimate bond.

PHYSICAL PROPERTIES

Liquid State		Cured State	
Base	Ethyl Cyanoacrylate	Color	Clear
Color	clear	Specific Gravity(20˚C)	1.1-1.3
Specific Gravity(20˚C)	1.053-1.060	Softening Point(˚C)	145 (176˚ F)
Refractive Index (n_D^{25})	1.439	Refractive Index (n_D^{20})	1.493
Flash Point (˚C)	80(176˚F)	Dielectric Constant(at 10MHz)	3.5
Shelf Life	10-12 Months	Dielectric Loss(at 10MHz)	0.067
Boiling Point(˚C)	65/6mm Hg	Soluble in Acetone, Dimethyl formamide, romethame, Dimethyl sulfoxide	
Viscosity(cps)	3-5		

DIRECTIONS FOR USE

1. Make sure the surfaces to be bonded are clean and dry (preferable to solvent-wipe plastics, glass, and rubber, and to acid-treat metals).
2. Dispense a drop or drops to one surface only. Apply only enough to leave a thin film after compression.
3. Press parts together and hold firmly for a few seconds. Good contact is essential. An adequate bond develops in less than one minute.(Maximum strength is achieved in 24 to 48 hours).
4. Wipe off excess adhesive from the top of the container and recap STLON 105 if left uncapped.

may deteriorate by contamination from moisture in the air.

5. Because MXBON 105 condenses by polymerization, sometimes a whitening will occur on the surface of the container or the bonded materials. Should this happen, wipe surfaces well with acetone.

BOND STRENGTH

(TENSILE SHEAR STRENGTH, CURED FOR 24 HOURS AT 20-25℃(68-77℉)

	KG/CM²		KG/CM²
Rigid PVC to Rigid PVC	△40-60	SBR to SBR	△5-10
ABS to ABS	△50-70	Steel to Steel	190-210
Polycarbonate to Polycarbonate	△80-120	Stainless steel to Stainless steel	160-180
Polystyrene to Polystyrene	△30-45	Aluminum to Aluminum	170-190
Natural rubber to Natural rubber	△5-9	Copper to Copper	150-170
*Neoprene to Neoprene	△5-9	Steel to Rigid PVC	△50-60
NBR to NBR.....	△5-9	Stainless steel to Neoprene	△5-10
ABS to SBR.....	△5-10		

CURE SPEED

MXBON 105	Seconds		Seconds
ABS to ABS	4-5	NBR to NBR	3-5
Wood to Wood	50-60	Stainless steel to Stainless steel	3-5
ABS to Stainless steel	5-10	ABS to NBR	3-5
NBR to Stainless steel	3-5	Wood to ABS	5-10

PRECAUTION

1. Use with proper ventilation. Avoid contact with skin and eyes.
2. If contact with skin occurs, rinse with warm water or dissolve gradually with solvent such as acetone, dimethylformanide, or nitromethane. Do not try to remove forcibly.
3. If adhesive gets into eye, keep eye open and rinse thoroughly. Seek medical attention immediately.
4. Keep well out of reach of children.
5. Keep adhesive in a cool, dry place 20-25℃(68-77℉). For long term storage, refrigeration (5℃ or 40℉) is recommended.

SATLON 105

CARTELL

TEL: 082 796 6158 CHARLES

MATERIAL SAFETY DATE SHIFT

SATLON® 105

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Item No.: SATLON® 105

Product Type: Cyanoacrylate Ester

2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredients	CAS No.	%
Ethyl Cyanoacrylate	7085-85-0	90 – 100

Exposure Limits (TWA)	ACGIH	OSHA	OTHER
Ingredients	(TLV)	(PEL)	
Ethyl Cyanoacrylate	0.2ppm TWA	None	None

3. HAZARDS INDENTIFICATION

HMIS® Code:

Health hazard: 2

Flammability Hazard: 2

Reactivity Hazards: 1

Personal Protection: See Section 8.

WARNING:

BOND SKIN SECONDS.

MAY CAUSE EYE AND RESPIRATORY IRRITATION.

COMBUSTIBLE LIQUID AND VAPOR.

Routes of exposure: Skin, eyes, and inhalation.

Potential Health Effects

Inhalation: Exposure to vapors above the established exposure limit results in respiratory irritation, which may lead to difficulty in breathing and feeling of tightness in the chest.

Skin contact: Bonds skin in seconds. May cause skin irritation. Cyanoacrylate have been

reported to cause allergic reactions but due to the rapid polymerization, allergic response is rare. Cyanoacrylates generate heat on polymerization, so very large amounts will burn the skin. The solidified does not present a health problem when bonded to skin.

Eye contact: Irritating to eyes. Will bond eyelids. Will cause excessive tearing.

Ingestion: Not expected to be harmful by ingestion. Rapid polymerize and bonds in mouth. It is very difficult to swallow.

Existing conditions aggravated by exposure: Respiratory, skin and eye disorders.

4. FIRST AID MEASURES

Ingestion: Ensure that breathing airways are not obstructed. The product will polymerize rapidly and bond to the mouth making swallowing extremely difficult. Usually any solidified product will separate after a few hours. Prevent any further swallowing of the separated material.

Inhalation: Remove to fresh air. If symptoms persist, get medical attention.

Skin Contact: Do not pull bonded skin apart. Soak in warm soapy water. Gently pry apart using a blunt instrument. If skin is burned because of large amounts of product, get medical attention.

Eye Contact: Immediately flush with plenty of water. Get medical attention. If eyelids are bonded shut, release eyelashes first with a wet pad and warm water. Do not force eye open. Cyanoacrylates will bond to the eye, tearing will help de-bond the adhesive. Keep eye covered until de-bonding is complete usually within 3 days. Solid particles from the polymerized product can cause abrasive damage. Get medical attention.

5. FIRE FIGHTING MEASURES

Flash Point: 65°C to more than 93° C Method: Tag Closed Cup

Auto ignition temperature: 485°C.

Lower explosive limit: not available

Upper explosive limit: not available

Extinguishing agents: Carbon dioxide, foam, and dry chemical

Special firefighting procedures: Fire Fighters should wear positive pressure self-contained breathing apparatus.

Hazardous combustion products: Trace amounts of toxic and irritating fumes.

Unusual Fire or Explosion Hazards: None

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions: Prevent spill from entering drains or open waters. Ventilate area.

Clean-up procedure: Do not use cloth for clean up. Flood with water to complete polymerization and scrape up the polymer. Solid materialcan be disposed as a non-hazardous waste.

7. HANDLING AND STORAGE

Storage:	Keep in a cool, well-ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.
Handling:	Avoid contact with eyes, skin and clothing. Avoid breathing vapor and mists. Wash thoroughly after handling. Avoid contact with fabric and paper goods. Contact with these may cause rapid polymerization that can generate smoke and strong irritating vapors, and can cause thermal burns.
Incompatible products:	No special restrictions on storage with other products.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering controls:	If general ventilation is insufficient to maintain vapor concentration below established exposure limits, use positive downdraft exhaust ventilation.
Respiratory protection:	If there is a potential to exceed exposure limits, use an approved respirator.
Eyes / face protection:	Safety glasses with side shields or chemical splash goggles.
Skin protection:	Use Nitrile gloves and aprons to prevent contact. Do Not Use PVC, nylon or cotton.

See Section 2 for exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid.
Color:	Clear colorless to straw.
Odor:	Sharp, irritating.
Boiling Point / range:	Greater than 150 °C.
Melting point / range:	Not Determined.
pH:	Not applicable
Solubility in Water:	Polymerizes in the presence of water.
Specific Gravity:	1.05 @ 25 ?C
Partition coefficient (octanol/water):	Not applicable.
VOC content:	98.8%; 1036 grams / liter (EPA Method 24). Less than 20 g/l (California SCAQMD Method 316B).
Vapor Pressure:	Less than 0.2 mm Hg
Vapor Density:	Approximately 3.
Evaporation Rate:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage conditions.
Hazardous polymerization:	Rapid exothermic polymerization will occur in the presence of water, amines, alkalis and alcohols.

Incompatibility:	Water, amines, alkalis, and alcohols.
Conditions to Avoid:	Spontaneous polymerizations.
Hazardous decomposition products:	None.

11. TOXICOLOGICAL INFORMATION

Product toxicity data: Acute oral LD50 greater than 5,000 mg/kg (rat)(estimated).. Acute dermal LD50 greater than 2000 mg/kg (rabbit)(estimated).

Carcinogen Status

Hazardous component	NTP Carcinogen	OSHA Carcinogen	IARC Carcinogen
Ethyl Cyanoacrylate	No	No	No

Literature Referenced Target Organ & Other Health Effects

Hazardous component	Health Effects / Target Organ
Ethyl cyanoacrylate	Allergen, Irritant, Respiratory

12. ECOLOGICAL INFORMATION

Ecological Information: Not Known

13. DISPOSAL INFORMATION

Dispose of according to local, province /state, country 's governmental regulations

Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

US DOT - Ground (49 CFR):

Proper shipping name:	Combustible liquids, n.o.s. (Cyanoacrylate ester).
Hazard class or division:	3
Identification number:	NA 1993
Packing group:	None.
Exceptions:	(Not more than 450 liters) Unrestricted.
Marine pollutant:	None.

International Air transportation - (ICAO/IATA):

Proper shipping name:	Aviation regulated liquid, n.o.s. (Cyanoacrylate ester).
Hazard class or division:	9
Identification number:	UN 3334
Packing group:	III.
Exceptions:	(Not more than 500 ml) Unrestricted.

Water Transportation - (IMO/IMDG):

Proper shipping name:	Unrestricted.
Hazard class or division:	None
Identification number:	None
Packing group:	None.
Marine pollutant:	None.

15. REGULATORY INFORMATION

US Regulatory Information:

TSCA 8 (b) Inventory Status:	All components are listed or exempt from listing.
TSCA 5(a)(2) SNUR:	None
TSCA 12 (b) Export Notification:	None
CERCLA/SARA Sec. 302 EHS:	None.
CERCLA/SARA Sec. 311/312:	Immediate Health Hazard, Delayed Health Hazard, Fire, and Reactive.
CERCLA/SARA Sec. 313:	This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372): None.
California Proposition 65:	No California Proposition 65 listed chemicals are known to be present.

Canada Regulatory Information:

CEPA DSL/NDSL Status:	All components are listed on or are exempt from listing on the Domestic Substances List.
WHMIS hazard class:	B.3, D.2.B.

16. OTHER INFORMATION

This MSDS contains changes from previous versions: Expanded version.

Disclaimer: The data contained herein are furnished for informational purposes only and are believed to be reliable. However, Cartell Chemical Company Limited does not assume responsibility for any results obtained by persons over whose methods Cartell Chemical Company Limited has no control. It is the user's responsibility to determine the suitability of Cartell Chemical's products or any production methods mentioned herein for a particular purpose, and to adopt such precautions as may be advisable for the protection of property and persons against any hazards that may be involved in the handling and use of any Cartell Chemical Company Ltd's products. Cartell Chemical Company Limited specifically disclaims all warranties express or implied, including warranties of salability and suitability for a particular purpose arising from sale or use of Cartell Chemical Company Ltd's products. Cartell Chemical further disclaims any liability for consequential or incremental damages of any kind including lost profits.

Revision Date: June 16, 2004 Revision: 0004