

MATERIAL SAFETY DATA SHEET

Product Name: Sticky Jack Glue
Polyurethane Adhesive

HMIS Codes: H F R P
2 1 1 K

SECTION I – MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: SAG INTERNATIONAL, LLC
ADDRESS: PO Box 50522
PASADENA, CA 91115
EMERGENCY PHONE: (800) 424-9300
DATE REVISED: June 19, 2008
REASON REVISED: NEW FORMULATION

INFORMATION PHONE: 626-577-9130
NAME OF PREPARER: RON ROTH

SECTION II – HAZARDOUS INGREDIENTS/SARA III INFORMATION

Hazardous Components	Occupational Exposure Limits			Other	Vapor Pressure	Weight
	CAS Number	OSHA PEL	ACGIH TLV		mm Hg @ Temp	Percent
Urethane Prepolymer**	Trade Sec.	0.02 ppm	0.005 ppm	TWA	n/a	60
*Polymeric MDI (Contains 4,4' MDI, CAS # 101-68-8)	9016-87-9	0.02 ppm	.005 ppm	TWA	n/a	40

*Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

**Exposure limits represent those established for the 4,4' MDI component of the polymeric MDI

The level of 4,4' MDI (CAS#101-68-8) present in the polymeric MDI is < 80%.

The vapor pressure of this product is less than 1×10^{-5} mm Hg at 77°F

****Exposure limits represent those established for the 4,4' MDI (CAS # 101-68-8) component of the prepolymer.**

SECTION III – PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: Decomp. @ 646 F Specific gravity (H₂O=1): 1.1
Vapor Density: Heavier than air Evaporation Rate: Slower than ether
Coating V.O.C.: N/A
Material V.O.C.: N/A
Solubility in Water: Nil, reacts with water
Appearance and Odor: Translucent amber syr

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

Flash Point: 390F Method Used: COC

Flammable Limits in Air by Volume - Lower: N/A Upper: N/A

Extinguishing Media: Foam, CO₂, Dry chemical

SPECIAL FIREFIGHTING PROCEDURES

Firefighters must wear positive pressure self-contained breathing apparatus and full protective clothing to protect against isocyanate vapors. IF WATER IS USED, USE LARGE AMOUNTS, AS WATER WILL REACT VIGOROUSLY WITH THE HOT MATERIAL.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Down wind personnel must be evacuated. Do not reseal contaminated containers as pressure build-up may rupture them. Water contamination will produce carbon dioxide which can rupture sealed containers.

SECTION V – REACTIVITY DATA

STABILITY: Stable

CONDITIONS TO AVOID: Elevated temperatures, or contamination by incompatible materials.

INCOMPATIBILITY (MATERIALS TO AVOID): water, acid, base, alcohols, metal compounds, surface active materials.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Isocyanate vapor and mist, CO₂, CO, NO, trace of hydrogen cyanide.

HAZARDOUS POLYMERIZATION: May occur.

In presence of strong bases, water or temperature over 160°C. Water contamination gives off CO₂ and may rupture containers.

SECTION VI – HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Vapor and aerosols can irritate eyes, nose, and respiratory passages. Severe overexposure can cause fluid buildup in lungs. MDI vapor can cause respiratory sensitization with asthma-like symptoms.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE

SKIN: Skin sensitization and irritation may develop after repeated and/or prolonged contact with human skin.

EYES: Contact will irritate human eyes.

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SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

This material will not normally be absorbed through human skin.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

LD50 for rats is probably above 5000mg/kg.

Irritation of the mouth, pharynx, esophagus and stomach can develop following ingestion.

HEALTH HAZARDS (ACUTE AND CHRONIC)

EYE: May cause irritation with tearing.

SKIN: May cause skin irritation, temporary stain and allergic sensitivity.

INGESTION: May cause irritation and corrosion on the mouth and stomach tissue.

INHALATION: May cause irritation to upper respiratory tract and lungs, breathlessness, cough, respiratory sensitization.

CARCINOGENICITY:

NTP: No

IARC MONOGRAPHS: No

OSHA REGULATED: No

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

Respiratory symptoms, including pulmonary edema, may be delayed.

EMERGENCY AND FIRST AID PROCEDURES

Eye: Immediately irrigate with flowing water for 15 minutes. Consult a physician.

Skin: Wash off in flowing water or shower.

Ingestion: Do not induce vomiting. Seek medical attention.

Inhalation: Remove to fresh air.

Consult a physician on all above cases.

SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Major: Evacuate and ventilate spill area. Prevent entry into water system. Wear full protective equipment.

Minor: Absorb with inert absorbent material.

WASTE DISPOSAL METHOD

Follow all federal, state, and local regulations. Fill empty drums with water and let stand unsealed for 48 hours. Triple rinse and drain. Dispose of empty drums according to federal, state, and local regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Store indoors at room temperature in original, unopened containers. Protect from atmospheric moisture. Replace outage with inert dry gas such as nitrogen.

OTHER PRECAUTIONS

Based on available data repeated exposures do not cause additional significant adverse effects.

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SECTION VIII – CONTROL MEASURES

RESPIRATORY PROTECTION

Atmospheric levels should be maintained below the exposure guideline. Use an approved supplied air respirator or an approved positive pressure self-contained breathing apparatus if these levels are exceeded.

VENTILATION

Provide general and/or local exhaust.

PROTECTIVE GLOVES

Use protective gloves.

EYE PROTECTION

Use safety glasses or chemical goggles.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT

Selection of specific items such as gloves, boots, apron or full body-suit will depend on operation.

WORK/HYGIENIC PRACTICES

Remove contaminated clothing. Wash skin and launder clothing before use.

SECTION IX – OTHER INFORMATION

DISCLAIMER

All information is based upon data from manufacturer's and/or technical sources and is believed to be accurate.



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www.StickyJackGlue.com

Material Safety Data Sheet Sticky Jack Super Glue

Emergency Response Service: 1 (800) 535-5053

1- Chemical Product and Company Identification:

Product Name: **Sticky Jack Super Glue**
Date revised: 11/11/2008

Product Type: Cyanoacrylate Ester

2- Composition/Information on Ingredients:

<u>Hazardous Component</u>	<u>CAS Number</u>	<u>%</u>
Ethyl-2 Cyanoacrylate	7085-85-0	80-95
Poly Methyl Methacrylate	9011-14-7	5-10

<u>Exposure Limits (TWA)</u>	<u>ACGIH (TLV)</u>	<u>OSHA (PEL)</u>	<u>OTHER</u>
Ethyl-2 Cyanoacrylate	0.2 ppm	None	None

Exposure Limits (STEL)

3- Hazards Identification:

Toxicity: Skin contact may cause burns. Bonds rapidly and strongly to skin.
Skin and eye irritant. Estimated oral LD50 more than 5000mg/kg.

Primary routes of Entry: Inhalation

Signs of exposure: Vapor is irritating to eyes and mucous membranes above TLV. Prolonged and / or repeated overexposure to vapors may produce symptoms of non-allergic asthma in sensitive individuals.

4- First Aid Measures:

Ingestion: Ingestion is unlikely. See supplemental section for emergency action.
Inhalation: Remove to fresh air. If symptoms persist, obtain medical attention.
Skin contact: Soak in warm water. See supplemental section for emergency action.
Eye contact: Flush with warm water. See supplemental section for emergency action.

5- Fire Fighting Measures:

Flash Point: 150-200F, Tag Closed Cup
Extinguishing Media: Foam, Dry Chemical or Carbon Dioxide
Unusual Fire or Explosion Hazards: Vapors exceeding the flash point will ignite when exposed to flame.
Special Fire Fighting Procedures: Wear self-contained breathing apparatus.

6-Accidental Release Measures

Steps to be taken in case of spill or leak: Flood with water to polymerize. Soak up with inert absorbent.

7- Handling and Storage:

Safe storage: Store away from heat and direct sunlight to maximize shelf life. Store inside in a dry location.

Handling: Keep container tightly closed. Avoid contact with skin. Avoid breathing vapors.

8- Protective Equipment:

Ventilation: Local exhaust ventilation is recommended to maintain vapor level below TLV.

Respiratory protection: Not applicable with good local exhaust.

Skin: Polyethylene or non-reactive gloves. Do not use cotton or wool. See supplemental page for more information.

Eye protection: Safety glasses or goggles with side shields.

9- Physical and Chemical Properties:

Appearance: Clear liquid
Odor: Sharp, pungent
Boiling Point: Greater than 300F
Vapor Pressure: Less than .2mmHg @20C
Vapor Density: Approximately 3 (Air =1)
Evaporation rate: Not applicable
Specific Gravity: 1.06
Solubility in water: Negligible. Polymerized by water.

10- Stability and Reactivity

Stability: Stable
Hazardous Polymerization: Will not occur
Incompatibility: Polymerized by contact with water, alcohols, amines, and alkalis.

11- Toxicological Information

See Section 3

12-Ecological Information

No Data

13- Disposal Considerations:

Spill or accidental release: Flood with water to cure (harden) adhesive. Soak up with an inert absorbent.
Disposal procedures: Incinerate or dispose of in an approved landfill in accordance with local and EPA regulations. Not a RCRA hazardous waste.

14- Transportation Information:

Domestic Ground Transport:
Proper shipping name: Unrestricted (not more than 450 liters)
Hazard class or division: Combustible liquid, n.o.s. (more than 450 liters)
Identification number: Unrestricted (Not more than 450 liters)
NA 1993 (More than 450 liters) None
Marine pollutant: No

15- Regulatory Information

CA Proposition 65: No information

16- Other Information

<u>Hazard</u>	<u>NFPA Hazard Code®</u>	<u>HMIS Hazard Code®</u>
Health	2	2
Fire	2	2
Reactivity	1	1
Specific Hazard	No water	Personal protection: See Section 8

NFPA is a registered trademark of the National Fire Protection Association
HMIS is a registered trademark of the National Paint and Coatings Association

First Aid Supplement

Cyanoacrylate adhesive is a very fast setting and strong adhesive. It bonds human tissue and skin in seconds. Experience has shown that accidents due to Cyanoacrylates are best handled by passive, non-surgical first aid. Treatment of specific types of accidents are suggested as follows:

Skin Contact- Remove excess adhesive. Soak in warm, soapy water. The adhesive will come loose from the skin in several hours. Dried adhesive does not present a health hazard even when bonded to the skin. Avoid contact with clothes, fabric, rags or tissue. Contact with these materials may cause polymerization. The polymerization of large amounts of adhesive will generate heat causing smoke, skin burns, and strong, irritating vapors. Wear rubber or polyethylene gloves and an apron when handling large amounts of adhesive.

Skin Adhesion- First immerse the bonded surfaces in warm, soapy water. Peel off or roll the surfaces open with the end of a blunt edge, such as a spatula or a spoon handle, then remove adhesive from the skin with soap and water. Do not try to pull the surfaces apart with a direct opposing action.

Eyelid Adhesion- In the event that eyelids are stuck together or bonded to the eyeball, wash thoroughly with warm water and apply a gauze patch. The eye will open without further action, typically in one to two days. There will be no residual damage. Do not try to open the eyes by manipulation.

Adhesive in eye- Adhesive introduced into the eyes will attach itself to the eye protein and will disassociate from it over intermittent periods, usually in several hours. This will cause periods of weeping until clearance is achieved. It is important to understand that disassociation will normally occur within a matter of hours, even with gross contamination.

Mouth- If lips are accidentally stuck together apply lots of warm water and encourage maximum wetting and pressure from saliva inside the mouth. Peel or roll lips apart. Do not try to pull the lips with direct opposing action. It is almost impossible to swallow Cyanoacrylate. The adhesive solidifies and adheres in the mouth. Saliva will lift the adhesive in one to two days.

Burns- Cyanoacrylates give off heat on solidification. In rare cases, large drops will increase in temperature enough to cause a burn. Burns should be treated normally after the lump of Cyanoacrylate is released from the tissue as described above.

Surgery- It should never be necessary to use such drastic action to separate accidentally bonded skin.

Prepared by: John Paul Obregon
Company: SAG International, LLC
Revision Date: 11/11/2008

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATIONS AND OF THE COMPANY UNDERTAKING

Product Name Sticky Jack Tape
Product Description Polymer Based Pressure Sensitive Adhesive
Manufacturer/Supplier SAG International, LLC
Address PO Box 50522
Pasadena, CA 91115
Phone Number (877) 845-8530
Revision Date: July 29, 2008
Safety Data Sheet according to EC directive 2001/58/EC and OSHA's Hazcom Standard (29 CFR 1910.1200)

2. HAZARDS IDENTIFICATION

EU Main Hazards Not classified as hazardous.
Routes of Entry Skin contact
Carcinogenic Status See Section 11 for information.
Target Organs Skin
Health Effects – Eyes Contact may cause irritation due to mechanical abrasion.
Health Effects – Skin Prolonged, repeated contact with adhesive may cause skin irritation.
Health Effects – Ingestion Not an expected route of entry during normal handling and use.
Health Effects – Inhalation Not expected to cause irritation during normal handling and use.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component Name	CAS#/Codes	Concentration	R Phrases	Classification
Polymers and Rubbers	N.A.	<20%	None	None
Hydrocarbon resin	N.A.	<25%	None	None
Inorganic Compound(s)	N.A.	<30%	None	None
Titanium Dioxide	13463-67-7 236-675-5	<2%	None	None
Quartz	14808-60-7 238-878-4	<1%	None	None

4. FIRST AID MEASURES

Eyes

Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

Skin

Wash skin thoroughly with soap and water. Obtain medical attention if blistering occurs or redness persists.

Ingestion

Obtain medical attention immediately.

Inhalation

Remove person to fresh air. Seek medical attention if symptoms persist.

Advice to Physicians

Treat symptomatically

5. FIRE - FIGHTING MEASURES

Extinguishing Media

Water spray, carbon dioxide and dry chemical.

Unusual Fire and Explosion Hazards

Can release hazardous vapors during a fire.

Protective Equipment for Fire-Fighting

Wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

No specific measures necessary. Prevent the material from entering drains or watercourses.

7. HANDLING AND STORAGE

Keep away from heat and sources of ignition. Exposure to high heat or flame can release irritating and toxic fumes. Storage area should be: - cool - dry - well ventilated - away from incompatible materials

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Standards

Exposure limits are listed below, if they exist.

Polymers and Rubbers

None established Hydrocarbon Resin None established Inorganic Compound(s)

None established Quartz

ACGIH TLV for Quartz (silica-crystalline) is 0.025 mg/m³ measured as respirable fraction of the aerosol.

Titanium Dioxide

ACGIH TLV: 10 mg/m³ TWA

OSHA PEL: 15 mg/m³ TWA (Total dust)

Engineering Control Measures

No specific measures necessary. Good general room ventilation is expected to be adequate to control airborne levels.

Respiratory Protection

Respiratory protection not normally required.

Hand Protection

Not required under normal conditions of use. However, care should be taken to avoid contact with the adhesive.

Eye Protection Safety glasses

Body Protection Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Polymer and doth backing with a polymer based pressure sensitive adhesive
Color	Varied
Odor	Slight
pH	Not applicable
Specific Gravity	No data available
Boiling Range/Point (°C/F)	Not applicable
Melting Point (°C/F)	Not applicable
Flash Point (PMCC) (°C/F)	Not known
Explosion Limits (%)	No data available
Vapor Pressure	Not applicable
VOC (g/l)	<1 g/l
Density	No data.
Solubility in Water	Not known
Vapor Density (Air = 1)	Not applicable

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Conditions to Avoid

- Heat - High temperatures

Materials to Avoid

Acids — bases — strong oxidizers

Hazardous Polymerization

Will not occur.

Hazardous Decomposition Products

- oxides of carbon – hydrocarbons - partially oxidized hydrocarbons - traces of alphaethylacrolein and formaldehyde – aldehydes – acrolein – waxes – oligomers - oxygenated hydrocarbons - oxides of nitrogen

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Low order of acute toxicity.

Chronic Toxicity/Carcinogenicity

This product is not expected to be a carcinogenic.

Genotoxicity

This product is not expected to cause any mutagenic effects.

Reproductive/Developmental Toxicity

This product is not expected to cause adverse reproductive effects.

12. ECOLOGICAL INFORMATION

Mobility

No relevant studies identified.

Persistence/Degradability

No relevant studies identified.

Bio-accumulation

No relevant studies identified.

Ecotoxicity

The product may be harmful to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with all applicable local and national regulations.

14. TRANSPORT INFORMATION

DOT CFR 172.101 Data	Not Regulated
UN Proper Shipping Name	Not Regulated
UN Class	None.
UN Number	None.
UN Packaging Group	None.
Classification for AIR Transportation (IATA)	Consult current IATA Regulations prior to shipping by air.

15. REGULATORY INFORMATION

EU Label Information

Classification and labelling have been performed according to EU directives 67/548/EEC and 99/45/EC including amendments(2001/60/EC and 2006/8/EC)

EC Annex I Classification

According to EC Commission Directive 67/548/EEC this product is not classified.

R phrases

None.

S phrases

None.

US REGULATIONS (Federal, State) and INTERNATIONAL CHEMICAL REGISTRATION LAWS

TSCA Listing

This product contains ingredients that are listed on or exempt from listing on the EPA Toxic Substance Control Act Chemical Inventory.

15. REGULATORY INFORMATION

DSL (Canadian) Listing

All ingredients in this product have not been verified for inclusion on the Domestic Substance List (DSL).

California Proposition 65

This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.

16. OTHER INFORMATION

NFPA Ratings

NFPA Code for Flammability - 0

NFPA Code for Health - 1

NFPA Code for Reactivity - 0

NFPA Code for Special Hazards - 0

HMIS Ratings

HMIS Code for Flammability - 0

HMIS Code for Health - 1

HMIS Code for Reactivity - 0

HMIS Code for Personal Protection - See Section 8

16. OTHER INFORMATION

The information and recommendations presented in this MSDS are based on sources believed to be accurate.