



MATERIAL SAFETY DATA SHEET

REMOVE DEBONDER

HMIS	HEALTH	2	FLAMMABILITY	3	REACTIVITY	3
NFPA	HEALTH	1	FIRE HAZARD	3	REACTIVITY	4

1. Chemical Product

Product Name: Remove Debonder
Product Type: Nitromethane/Methyl Ethyl Ketone Mixture

2. Composition and Information on Harmful Ingredients

Ingredients	CAS No.	OSHA PEL	ACGIH TWA	ACGIH STEL	%Composition
Nitromethane	75-52-5	100ppm	20ppm	N.E.	>75
Methyl Ethyl Ketone	78-93-3	200ppm	200ppm	300ppm	<25

3. Hazards Identification

Physical State: Liquid.
Color: Clear to amber.
Odor: Ketone Odor.

*****EMERGENCY OVERVIEW***: DANGER! FLAMMABLE LIQUID. Keep away from heat, sparks, and open flame. Harmful if inhaled. Causes eye and skin irritation. Harmful if swallowed. Aspiration may cause lung damage.**

Routes of exposure: Eyes, ingestion, inhalation, skin.
Target organs: Eyes, skin, respiratory system, central nervous system, liver, kidneys.
Medical conditions aggravated by exposure: Eye, skin, respiratory system disorders, and nervous system disorders.
Other: Drinking alcohol may worsen the effects resulting from exposure.
Cancer information: This product does not contain greater than 0.1% of known or potential carcinogens listed in NTP, IARC, or OSHA.

4. First Aid Measures

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. Get immediate medical attention.



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14. Transportation Information (Not meant to be all inclusive)

DOT (Department of Transportation):

Shipping name:	Flammable Liquid, N.O.S. (Nitromethane/Methyl Ethyl Ketone Mixture)
Hazard class:	3
ID/UN number:	UN1993
Packing group:	II
Label required:	Flammable Liquid
Special Provisions:	PASSENGER AIRCRAFT/RAIL - FORBIDDEN
Reportable quantity (RQ):	5000Lbs. (Methyl Ethyl Ketone)

NON-WARRANTY: Information contained herein is based on tests we believe to be reliable and accurate. It is offered in good faith for the benefit of the consumer. FastCap LLC shall not be liable for any injury, loss, or damage in the use of its chemical products since the conditions of use are beyond our control. In every case we urge and recommend the user conduct tests to determine to their own satisfaction that the product is of acceptable quality and is suitable for their particular purpose under their own operating conditions. Statements concerning the possible use of our products are not intended as recommendations to use our products in the infringement of any patent. Because of changing reporting requirements and other variables it is impossible to guarantee the accuracy of the information contained in this document. It is the responsibility of the user to determine proper personal protection based on the actual condition of use and to comply with all Federal, State, and Local laws and regulations.

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- Skin contact:** Flush skin with plenty of water while removing contaminated clothing and shoes. If irritation persists, get medical attention.
- Inhalation:** Remove to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. **GET MEDICAL ATTENTION IMMEDIATELY.**
- Ingestion:** If swallowed, call a physician immediately. **DO NOT** induce vomiting unless directed to do so by a physician. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

NOTE TO PHYSICIANS: There is no specific antidote. Treatment should be directed at controlling symptoms and the clinical condition of the patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should not be induced mechanically or pharmacologically. If it is necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (e.g., gastric lavage after endotracheal intubation).

5. Fire Fighting Measures

- Flash Point:** >16°F
- Flammability Limits:** LEL: 1.4-7.3% UEL: 11.4-63%
- Autoignition temperature:** 759-959°F
- Extinguishing Media:** Water spray, CO₂, or appropriate foam.
- Special Fire Fighting Procedures:** Wear self contained breathing apparatus.
- Fire / Explosion Hazards:** **FLAMMABLE LIQUID.** Vapors are heavier than air.
- Hazardous Thermal Decomposition Products:** Carbon dioxide, carbon monoxide, and nitrogen oxides.
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6. Accidental Release Measures

FLAMMABLE LIQUID. Eliminate all sources of ignition. Evacuate unprotected personnel from area. Maintain adequate ventilation. Follow personal protection recommendations found in section 8. Shut off source of leak if safe to do so. Use non-sparking tools and equipment. Contain spill, place into drums for proper disposal. Soak up residue with non-flammable absorbent material. **DO NOT** use sawdust. Avoid direct discharge to sewers and surface waters. Notify authorities if entry occurs. Use water spray to control vapor.

7. Handling and Storage

- Storage:** **FLAMMABLE LIQUID.** Store in a cool, well-ventilated area away from all sources of ignition and out of direct sunlight. Keep containers tightly closed. Bond and ground transfer containers and equipment.
- Handling:** Avoid contact with eyes, skin, and clothing. **DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.**
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MATERIAL SAFETY DATA SHEET

Product Name: 2P-10

FASTCAP LLC

Bellingham, WA 98226

EMERGENCY PHONE: 1-888-443-3748

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: 2P-10 Adhesive

Product Type: Modified Cyanoacrylate Ester

2. COMPOSITION, INFORMATION ON INGREDIENTS

Ingredients	CAS NO.	%
Cyanoacrylate ester	Proprietary	90-95
Poly (methyl methacrylate)	9011-14-7	5-10
HYDROQUINONE	123-31-9	0.1-1

Ingredients, which have exposure limits

Exposure Limits: Ingredients	(TWA) ACGIH (TLV)	OSHA (PEL)	OTHER
Cyanoacrylate ester	None	None	0.2 ppm TWA
HYDROQUINONE	2mg/m ³ TWA	2 mg/m ³ TWA	2 mg/m ³ TWA 4 mg/m ³ STEL

3. HAZARDS IDENTIFICATION

Toxicity: Skin contact may cause burns
Bonds skin rapidly and strongly
Skin and eye irritant

Primary Routes of Entry: None Known

Signs and Symptoms

Of Exposure: Vapor is irritating to eyes and mucous membranes above TLV.
Exposure to vapors above the established limits may cause
Symptoms of non-allergic asthma.

Existing Conditions

Aggravated by Exposure: None Known

Ingredients	Literature Referenced Target organ and other Health Effects	Carcinogen NTP IARC OSHA
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Cyanoacrylate ester	ALG IRR	NO	NO	NO
Poly (methyl methacrylate)	IRR	NO	N/A	NO
Cyanoacetate	NTO	NO	NO	NO

3. Hazards identification

HYDROQUINONE BLO BNM CNS IMM IRR LIV MUT NO N/A NO
 SKI THY

Abbreviations

N/A Not Applicable	ALG Allergen
BLO Blood	BNM Bone Marrow
CNS Central nervous system	EYE eyes
IMM Immune System	IRR Irritant
LIV Liver	MUT Mutagen
NTO No Target Organs	SKI Skin
THY Thyroid	

4. First Aid Measures

Ingestion: Ingestion is not likely. See supplemental page for emergency Procedures.
 Inhalation: Remove to fresh air. If symptoms persist, obtain medical attention.
 Skin Contact: Soak in warm water. See supplemental page for emergency Procedures.
 Eye Contact: Flush with water. See supplemental page for emergency procedures.

5. Fire Fighting Measures

Flash Point: 185o F
 Method: Tag Closed Cup Recommended
 Extinguishing Agents: Carbon dioxide, foam, dry chemical
 Special Firefighting Procedures: Not Available
 Hazardous Products Formed: By fire or thermal, decomp
 Irritating Organic vapors
 Unusual fire or explosion Hazards: None
 Explosive Limits:
 (% by volume in air) Lower: Not Available
 (% by volume in air) Upper: Not Available

6. Accidental Release Measures

Steps to be taken in case
 Of spill or leak: Flood with water to polymerize. Soak up with an inert Absorbent

7. Handling Controls, Personal Protection

Safe Storage: Store below 75o F
Handling: Avoid skin or eye contact. Avoid breathing vapor.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Eyes: Safety glasses or goggles
Skin: Nitrile or polyethylene gloves and aprons
Do not use cotton
See supplemental page for additional information
Ventilation: Local ventilation may be desirable when using large amounts in a confined area.
Respiratory: Not Available

See section 2 for Exposure Limits

9. Physical and Chemical Properties

Appearance: Water white to straw colored liquid
Odor: Negligible
Boiling Point: More than 300o F
Ph: Does not apply
Solubility in Water: Polymerized by water
Specific Gravity: 1.1
Volatile Organic Compound (EPA Method 24) 32.9%; 345 grams per liter
Less than 20 g/l (California SCAQMD method 316B)
Vapor Pressure: Less than 0.02 mm Hg
Vapor Density: Not Available
Evaporation Rate: (Ether=1) Not Available

10. Stability and Reactivity

Stability: Stable
Hazardous Polymerization: Will not occur
Incompatibility: Polymerized by contacts water, alcohols, amines or alkalis
Conditions to avoid: Not Available
Hazardous Decomposition Products (non-thermal): None

11. Toxicological Information:

Estimated oral LD50 more than 5000 mg/kg
Estimated dermal LD50 more than 2000 mg/kg

12. Ecological Information

No Data Available

13. Disposal Considerations

Recommended methods of Disposal: Polymerize as above. Incinerate following EPA and local Regulations

EPA Hazardous waste Number: NH- Not a RCRA Hazardous waste Material

14. Transportation Information

DOT (49 CFR 172)

Domestic Ground Transport

Proper Shipping Name: Unrestricted (not more than 450 liters); Combustible Liquid (More than 450 liters)

Identification Number: None (Not more than 450 liters); NA 1993 (more than 450 liters)

Marine Pollutant: None

IATA

Proper Shipping Name: Unrestricted (Not more than one pint) Aviation regulated liquid, n.o.s., (Cyanoacrylate Ester) (More than one pint)

Class or Division: Unrestricted (Not more than one pint); Class 9 (More than one pint)

UN or ID Number: None (Not More than one pint) UN 3334 (More than one pint)

15. Regulatory Information

CA Proposition 65: No California Proposition 65 chemicals are known to be present.

16. Other Information

Estimated NFPA(R) Code:

Health Hazard: 2

Fire Hazard: 2

Reactivity Hazard: 1

Specific Hazard: Does not apply

Estimated HMIS (R) Code:

Health Hazard: 2

Flammability Hazard: 2

16. Other Information

Reactivity Hazards: 1

Personal Protection: See Section 8

NFPA is a registered trademark of the National Fire Protection Assn.

HMIS is a registered trademark of the National Paint and Coatings Assn.

DISCLAIMER:

The information contained within this MSDS applies only to FastCap's product to which the sheet relates. The information provided is based on our best knowledge at the time of issue. The information contained within this MSDS is believed to be accurate and is given in good faith. However, no warranty is made, either express or implied, regarding its accuracy or any liability arising out of the use of the information herein or the product supplied.

When used in other preparations, formulations, or in mixtures, it is necessary to ascertain whether the classifications of the hazards have changed. The attention of the user is drawn to the possibility of creating other hazards when the product is used for purpose other than that for which it was recommended. In such cases, a reassessment may be necessary and should be made by the user.

This safety data sheet should only be used and reproduced in order that the necessary measures are taken relating to the protection of health and safety at work.

It is the responsibility of the handlers to pass on the totality of the information contained within this document to any subsequent person(s) who will come in to contact with, handle or use this product in any way.

They should check the adequacy of the information provided within this MSDS before passing it on to their customers/staff.

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Material Safety Data Sheet
Product: 2P-10 Activator

SECTION I

Chemical Name and Synonyms: HEPTANE & AMINE BLEND Trade Name and Synonyms: RiteLok AC 11
Chemical Family: MIXTURE Formula: N/A

Flammability: SERIOUS (3) Health: MODERATE (2) Reactivity: (0)

SECTION II-HAZARDOUS INGREDIENTS

Hazardous Mixtures of Other Liquids, Solids, or Gases

Listed as a carcinogen

	CAS NO	%	IARC, NTP, OSHA
HEPTANE	142-82-5	> 90	NO NO NO
N,N-DIALKYL TOLUIDINE	99-97-8	< 1	NO NO NO

SECTION III-PHYSICAL DATA

Boiling Point: (degrees F) 208°F Specific Gravity: >0.684 @ 77°F (H2O = 1)
Vapor Pressure: (mmHg) 40 mm @ 68°F Percent Volatile, by Volume: 100%
Vapor Density: (Air=1) 3.5 g/l Evaporation Rate: HIGH
Solubility in Water: IMMISCIBLE Color: WATER CLEAR
Appearance: WATER THIN, VERY LOW VISCOSITY Odor: LIGHT HYDROCARBON ODOR

SECTION IV-FIRE AND EXPLOSION HAZARD DATA

Flash Point: 14°F (method used-T.C.C.) Flammable Limits: LEL: 1.1% UEL: 7%
Extinguishing Media: CO2, FOAM, DRY CHEMICAL
Special Fire Fighting Procedures: WEAR SELF CONTAINED BREATHING GEAR & PROTECTIVE CLOTHING.

Unusual Fire and Explosion Hazards: DIRECT WATER JET WILL SPREAD BURNING MATERIAL. COMBUSTION PRODUCTS ARE VERY TOXIC & HIGHLY IRRITATING. COOL SEALED DRUMS WITH WATER SPRAY TO LESSEN CHANCE OF RUPTURE. CONTAINER EXPLOSION CAN OCCUR, VAPOR FORMS EXPLOSIVE MIXTURE IN AIR.

SECTION V-HEALTH HAZARD DATA

Threshold Limit Value: SHORT TERM 500-PPM, TWA 400PPM
Effects of Overexposure: INGESTION-IF SIGNIFICANT QUANTITY INGESTED, MAY DULL SENSES (ORAL LD50 > 5000 Mg/Kg). INHALATION-MAY CAUSE NAUSEA, HEADACHE, DIZZINESS AND IRRITATION OF RESPIRATORY TRACT. SKIN AND EYES-IRRITATION ON CONTACT. (Est. DERMAL LD50 > 2000 Mg/Kg).
Emergency and First Aid Procedures: INGESTION-DO NOT INDUCE VOMITING. KEEP INDIVIDUAL CALM. OBTAIN MEDICAL ATTENTION. INHALATION-REMOVE TO FRESH AIR (OXYGEN OR ARTIFICIAL RESPIRATION IF NEEDED) OBTAIN MEDICAL ATTENTION (NOTE TO PHYSICIAN: USE OF EPINEPHRINE IS CONTRA-INDICATED). SKIN-WASH WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING AND LAUNDRY BEFORE REUSE. EYES-FLUSH EYES IMMEDIATELY WITH WATER A MINIMUM OF 15 MINUTES. IF IRRITATION PERSISTS CONTACT A PHYSICIAN.

SECTION VI-REACTIVITY DATA

Stability: STABLE.
Incompatibility (Materials to avoid): STRONG OXIDIZERS, SOURCES OF IGNITION
Hazardous Decomposition Products: CARBON MONOXIDE, CARBON DIOXIDE.

Hazardous Polymerization: WILL NOT OCCUR.

SECTION VII-SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled: EXTREMELY FLAMMABLE. KEEP ALL SOURCES OF IGNITION AND HOT METAL SURFACES AWAY FROM SPILL. PREVENT MATERIAL FROM ENTERING SEWERS OR NATURAL WATERWAYS. PERMIT ONLY PROPERLY PROTECTED WORKERS WITH SKIN & EYE PROTECTION AND SELF CONTAINED BREATHING GEAR. ABSORB SMALL SPILLS WITH ABSORBENT MATERIAL, PUMP LARGE SPILLS INTO SALVAGE TANKS.
Waste disposal method: RCRA HAZARDOUS WASTE. INCINERATE IN ACCORDANCE WITH EPA AND LOCAL REGULATIONS.

SECTION VIII-SPECIAL PROTECTION INFORMATION

Respiratory protection (type): ABOVE TLV. NIOSH/MESSA APPROVED RESPIRATOR.
Ventilation: LOCAL EXHAUST RECOMMENDED.
Protective Gloves: RESISTANT PLASTIC OR RUBBER.
Eye Protection: CHEMICAL SPLASH GOGGLES RECOMMENDED.
Other protective equipment: PROTECTIVE PLASTIC OR RUBBER APRON.

SECTION IX-SPECIAL PRECAUTIONS

Precautions to be taken in handling and storage: STORE IN A COOL DRY PLACE.

Other precautions: KEEP AWAY FROM EXCESSIVE HEAT & FLAME. KEEP CONTAINER CLOSED WHEN NOT IN USE, KEEP WELL VENTILATED. AVOID CONTACT WITH EYES, AVOID VAPOR. KEEP AWAY FROM CHILDREN.

SECTION X-TRANSPORTATION

Dot (49 CFR 172)

Proper Shipping Name: Heptane Solution

Hazard Classification: 3

UN#: 1206

Packaging Group: II

Hazard Label Required: Flammable Liquid

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REVISED 12/11/2001

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