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MATERIAL SAFETY DATA SHEET

1. COMPANY INFORMATION / CHEMICAL PRODUCT

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Product Name: Liquid Adhesive Accelerator (CA322)

Description: Acetone

2. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS #	%	ACGIH-TLV	OSHA-PEL
Acetone	67-64-1	95-99	750 ppm TWA 1000 ppm STEL	750 ppm TWA 1000 ppm STEL

3. HAZARDS IDENTIFICATION

Emergency overview: Clear, volatile liquid with characteristic ketone odor.

Respiratory tract: avoid breathing vapors.

Skin irritation: Avoid contact with skin and clothing.

Eye irritation: Avoid eye contact.

Flammable liquid: Keep away from all sources of ignition.

Wash thoroughly after handling.

Handle with caution and use only with adequate ventilation.

Potential Health Effects:

Ingestion: may cause skin discoloration, nausea, diarrhea, bloody vomit, inebriation, liver and kidney damage or coma.

Skin contact: irritation, defatting, cracking, dermatitis.

Inhalation: vapor can cause dizziness, drowsiness, stupor.

Eye contact: irritant

Medical Conditions Aggravated:

Persons with chronic respiratory or skin diseases.

Subchronic (target organ)

Effects: Central nervous system depressant.

Chronic effects: Prolonged or repeated exposure may cause the following effects: dermatitis and skin defatting, conjunctivitis and cataracts, inflammation of the respiratory tract, weakness, drowsiness, vertigo, hematological, anemia, liver and kidney damage.

Carcinogen

NTP = NO IARC = NO OSHA = NO

Other Toxicological Data:

Consumption of alcohol may increase the acute effects of exposure.

Principal Routes of Entry:

Eye contact, Skin contact, Inhalation, Ingestion, Skin absorption

4. FIRST AID MEASURES

EYE CONTACT:	Immediately flush with large amounts of water, until medical assistance is obtained.
SKIN CONTACT:	Immediately remove contaminated clothing, rinse exposed area thoroughly, if irritation occurs consult a doctor. Contaminated clothing must be laundered before re-use.
INHALATION:	Immediately remove victim to fresh air, if victim is not breathing a qualified person should immediately begin artificial respiration, obtain immediate medical assistance!
INGESTION:	If victim is conscious, induce vomiting keeping head below hips to avoid aspiration, get immediate medical assistance. Note to physician: No specific antidote, treat symptomatically.

5. FIRE FIGHTING MEASURES

Flash point:	minus 4 F
Method:	PMCC
Ignition Temperature:	869 F
Upper Flammable limit	13.0
Lower Flammability:	2.5
Sensitivity to mechanical impact:	NO
Sensitivity to static discharge:	YES

Extinguishing Media: For small fires: dry chemical, carbon dioxide, water spray or alcohol resistant foam. For large fires: water-spray, fog or alcohol resistant foam. Special firefighting procedures: Vapors are heavier than air and may travel a considerable distance to a source of ignition and flash back. Vapor air mixtures are explosive, consider evacuation downwind, wear appropriate protection equipment. If possible move containers from fire area, apply cooling water to sides of containers ensuring that you stay away from the ends of tanks (bulk storage, rail cars, tank trucks). Evacuate immediately if tanks are discolored or if rising sound is emitted from tanks, minimum evacuation radius should be 1/2 mile. Water may be ineffective if flow of flammable liquid is not stopped.

Flammability class (OSHA) ...IB

Hazard Rating:

Fire	3
Health:	2
Reactivity	0

6. ACCIDENTAL RELEASE MEASURES

Action to be taken for spills or releases: Shut off source, if without risk. Evacuate non essential personnel. Eliminate all sources of ignition. Dike area to prevent spreading. Prevent runoff into sewers, waterways, ditches or streams. Shovel or pump to a storage tank using non-sparking equipment. Absorb residual materials with an inert absorbent. Shovel absorbed residue into properly identified drums for later disposal. Contact local officials as required.

7. HANDLING AND STORAGE

Handling Procedures: This product must be handled by properly trained personnel. Use proper handling equipment for specific handling operation. When transferring material from one container to another ensure bonding and grounding to prevent static discharge. Do not breath vapor. Avoid all eye and skin contact by wearing protective equipment. Handle away from all sources of ignition and incompatible materials.

Storage Procedures: Store away from all sources of ignition. Store away from all incompatible materials. Ensure that the storage area is adequately ventilated and equipped with proper emergency response equipment. Observe all Federal, State and Local regulations when storing product.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Engineering Controls: Ensure that ventilation system used is designed to meet published exposure limits.

Proper handling systems should be designed for specific handling operation.

Respiratory Protection: The specific respirator selected must be based on contamination levels found in the work place, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA).

The following are minimum requirements: Exposure to 1000ppm.

Approved organic vapor cartridge respirator: Exposure between 1000ppm and 6250ppm.

Approved air supplied with full facepiece operating in continuous-flow mode: Exposure between 6250ppm and 12500ppm.

Approved air-purifying full facepiece with chin style front or back mounted organic vapor canister. Exposure between 12500ppm and 20000ppm.

Escape respirator: Any approved self contained escape type breathing apparatus.

Protective Clothes: Impervious gloves and clothing to prevent skin contact.

Eye and Face Protection: Safety goggles and a face shield.

Other protective equipment: Eye wash station in area where material is used. Drench type safety shower in immediate work area.

Ventilation: Provide local exhaust ventilation to meet published exposure limits. Ventilation equipment should be explosion proof. If explosive concentrations of dust, vapor, or fumes are present.

9. PHYSICAL AND CHEMICAL PROPERTIES

VAPOR DENSITY (Air=1)	2
FREEZING/MELTING POINT	minus 139 F
PHYSICAL STATE	Liquid
ODOR	Ketone odor(sweetish, mint like)
COLOR	Clear to amber
ODOR THRESHOLD	20 ppm
VOLATILES % VOLUME	100

EVAPORATION RATE	6.0 (butyl acetate=1.0)
SPECIFIC GRAVITY	0.7899 (water=1.0)
MOLECULAR WEIGHT	58.09
ACID/ALKALINITY	N/A
BOILING POINT	133 F
VAPOR PRESSURE	180.0 (MM/HG, 20 C)
SOLUBILITY IN WATER	Miscible

10. STABILITY AND REACTIVITY

STABILITY:	Stable
HAZARDOUS POLYMERIZATION:	Will not occur
HAZARDOUS THERMAL DECOMPOSITION/ COMBUSTION PRODUCTS	Oxides of Carbon
INCOMPATIBILITY (Materials to avoid)	Acids, Aliphatic Amines, Bromine, Bromine Trifluoride, Bromoform, Chloroform, Chromium Trioxide, Chromyl Chloride, Dioxygen Difluoride with Solid Carbon Dioxide, Hexachloromelamine, Hydrogen Peroxide, Nitric Compounds, Oxidizers, Plastics, Platinum with Nitrosyl Chloride, Potassium tert Butoxide, Rayon, Sodium Hypobromite, Sodium Hypoiodite, Sulfer Dichloride, Thiotriazole Perchlorate, 1,1,1, Trichloroethane, Trichloromelamine.
CONDITIONS TO AVOID	Exposure to heat, flame, or ignition sources. Contact with incompatible substances.

11. TOXICOLOGICAL INFORMATION

LD 50 ORAL:	Acetone: RTECS 95/01 SL1350000 Rat: 5800 mg/kg Mouse: 3g/kg Rabbit: 5340 mg/kg
LD 50 DERMAL:	Acetone: RTECS 95/01 AL1350000 Guinea Pig> 9400 mg/kg
LC 50 INHALATION	Acetone: RTECS 95/01 AL1350000 Rat: 50100 mg/m ³ 8 hours
OTHER:	Reproductive effects have been reported in animals.
AMES Test Results:	No data available covering AMES test results. Skin: Rabbit-Mild 500 mg/24hr. Eye: Rabbit-Moderate 20mg/24hr.

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: LD 50 Goldfish 5000 mg/1/24hr
LC 50 Poecilia reticulata (guppy) 7,032ppm/14 days
LC 50 Mexican axolotl 20.0 mg/ 48hr. (3-4 weeks after hatching)
LC 50 Clawed toad 24.0mg/1/48hr. (3-4 weeks after hatching)

CHEMICAL FATE INFORMATION:

TERRESTRIAL FATE: If released on soil, acetone will both volatilize and leach into the ground. Acetone readily biodegrades and there is evidence suggesting that it biodegrades fairly rapidly in soils.

AQUATIC FATE: If released into water, acetone will probably biodegrade. It is readily biodegradable in screening tests, although data from natural water are lacking. It will also be lost due to volatilization (estimated half-life 20 hour from model river). Absorption to sediment should not be significant.

ATMOSPHERIC FATE: In the atmosphere, acetone will be lost to photolysis and reaction with photochemically produced hydroxyl radicals. Half-life estimates from these combined processes are 79 and 13 days in January and June, respectively, for overall annual average of 22 days.

Therefore considerable dispersion should occur. Being miscible in water, wash out by rain should be an important removal process.

BIODEGRADATION: Biological oxygen demand: (Theoretical) 122%, 5 days.

13. DISPOSAL CONSIDERATIONS

Disposal method:

In accordance with Federal, State, and Local regulations.
Reportable quantity: RCRA U002, 5000lb.

14. TRANSPORT INFORMATION

DOT Shipping name: Acetone

DOT Hazard Class: 3-Flammable Liquid
Packaging group II

DOT Labels: All packaged material must be labeled in accordance with DOT and OSHA standards.

UN Number: un1090

Placards: In accordance with DOT 49CFR173 and DOT 49CFR243

IATA: Class 3

IMO/IMDG:3.1

European Class: Flammable liquid



A-CA0599

15. REGULATORY INFORMATION

Sara Section 302	No
Sara Section 304	No
Sara Hazard Categories Sections 311 and 312	
Acute Hazard	Yes
Chronic Hazard	No
Fire Hazards	Yes
Reactivity Hazards	No
Sudden Release Hazards	No
Sara 313 Chemicals	No
EPA TSCA Inventory	Appears
CERCLA Section 103	Yes, Acetone, 5000lb. Reportable quantity
Canadian WHIMIS Classification	B2, D2B
OSHA Process Safety	No
Canadian Domestic Substances List (DSL)	Appears
California Proposition 65	No
EINECS Inventory	Appears

16. OTHER INFORMATION

NOTICE:

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, PROTECHNOLOGY MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREFORE, PROTECHNOLOGY ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

BE SAFE:

READ OUR PRODUCT SAFETY INFORMATION AND PASS IT ON

