

# MATERIAL SAFETY DATA SHEET

MSDS DATE:08/07/07

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## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

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PRODUCT NAME: 409 SUPER BONDER® INDUSTRIAL GRADE GEL INSTANT ADHESIVE

SYNONYMS: N/A

PRODUCT CODES: 72570-09

MANUFACTURER: ELECTRON MICROSCOPY SCIENCES

DIVISION: 1560 INDUSTRY ROAD/P.O. BOX 550

ADDRESS: HATFIELD, PA 19440

EMERGENCY PHONE: 215-412-8400

CHEMTREC PHONE: 800-424 -4300

FAX PHONE: 215-412-8450

CHEMICAL NAME: N/A

CHEMICAL FAMILY: N/A

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## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

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### INGREDIENT:

ETHYL CYANOACRYLATE

<u>CAS NO.</u>	<u>% WT</u>	<u>% VOL</u>	<u>SARA 313 REPORTABLE</u>
7085-85-0	N/A	60-100	
	<u>ppm</u>	<u>mg/m3</u>	
OSHA PEL-TWA:	N/A	N/A	
OSHA PEL STEL :	N/A	N/A	
OSHA PEL CEILING:	N/A	N/A	
ACGIH TLV-TWA:	0.2	N/A	
ACGIH TLV STEL:	N/A	N/A	
ACGIH TLV CEILING:	N/A	N/A	

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## SECTION 3: HAZARDS IDENTIFICATION

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### EMERGENCY OVERVIEW:

ROUTES OF ENTRY: SKIN, INHALATION, EYES

### POTENTIAL HEALTH EFFECTS

EYES: IRRITATING TO EYES. CAUSES EXCESSIVE TEARING. EYELIDS MAY BOND.

SKIN: BONDS TO SKIN IN SECONDS. MAY CAUSE SKIN IRRITATION. CYANOACRYLATES HAVE BEEN REPORTED TO CAUSE ALLERGIC REACTION BUT DUE TO RAPID POLYMERIZATION AT THE SKIN SURFACE. AN ALLERGIC RESPONSE IS RARE.

INGESTION: NOT EXPECTED TO BE HARMFUL BY INGESTION. RAPIDLY POLYMERIZES (SOLIDIFIES) AND BONDS IN MOUTH. IT IS ALMOST IMPOSSIBLE TO SWALLOW.

INHALATION: EXPOSURE TO VAPORS ABOVE THE ESTABLISHED EXPOSURE LIMIT RESULTS IN RESPIRATORY IRRITATION WHICH MAY LEAD TO DIFFICULTY IN BREATHING AND TIGHTNESS IN THE CHEST

ACUTE HEALTH HAZARDS: N/A

CHRONIC HEALTH HAZARDS: N/A

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: EYE, SKIN, AND RESPIRATORY DISORDERS

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### CARCINOGENICITY

OSHA: NO ACGIH: N/A NTP: NO IARC: NO

OTHER: N/A

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## SECTION 4: FIRST AID MEASURES

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**EYES:** FLUSH WITH WATER FOR AT LEAST 15 MINUTES. IF EYELIDS ARE BONDED CLOSED, RELEASE EYELASHES WITH WARM WATER BY COVERING WITH A WET PAD. DO NOT FORCE EYE OPEN. CYANOACRYLATE WILL BOND TO EYE PROTIEIN AND WILL CAUSE A LACHRYMATORY EFFECT WHICH WILL HELP TO DEPEND THE ADHESIVE. KEP EYE COVERED UNTIL DEBONDING IS COMPLETE, USUALLY WITHIN 1-3 DAYS. MEDICAL ATTENTION SHOULD BE SOUGHT IN CASE SOLID PARTICLES OF POLYMERIZED CYANOACRYLATE TRAPPED BEHIND THE EYELID CAUSED ABRASIVE DAMAGE

**SKIN:** DO NO PULL BONDED SKIN APART. SOAK IN WARM SOAPY WATER. GENTLY PEEL APART USING A BLUNT INSTRUMENT. IF SKIN IS BURNED DUE TO THE RAPID GENERATION OF HEAT BY A LARGE DROP, SEEK MEDICAL ATTENTION. IF LIPS ARE BONDED, APPLY WARM WATER TO THE LIPS AND ENCOURAGE WETTING AND PRESSURE FROM SALIVA IN MOUTH. PEEL OR ROLL LIPS APART. DO NOT PULL LIPS APART WITH DIRECT OPPOSING FORCE.

**INGESTION:** ENSURE BREATHING PASSAGES ARE NOT OBSTRUCTED. THE PRODUCT WILL POLYMERIZE RAPIDLY AND BOND TO THE MOUTH MAKING IT ALMOST IMPOSSIBLE TO SWALLOW. SALICA WILL SEPERATE ANY SOLIDIFIED PRODUCT IN SEVERAL HOURS. PREVENT THE PATIENT FROM SWALLOWING ANY SEPERATED MASS.

**INHALATION:** REMOVE TO FRESH AIR. IF DISCOMFORT PERSISTS SEEK MEDICAL ATTENTION

**NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:** SURGERY IS NOT NECESSARY TO SEPARATE ACCIDENTALLY BONDED TISSUES. EXPIRENCE HAS SHOWN THAT BONDED TISSUES ARE BEST TREATED BY PASSIVE, NON-SURGICAL FIRST AID. IF RAPID CURING HAS CAUSED THERMAL BURNS THEY SHOULD BE TREATED SYMPTOMATICALLY AFTER ADHESIVE IS REMOVED.

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## SECTION 5: FIRE-FIGHTING MEASURES

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**FLAMMABLE LIMITS IN AIR, UPPER:** N/A  
(% BY VOLUME)                      **LOWER:** N/A

**FLASH POINT:**  
F: 176-200 DEG  
C: 80-93.4 DEG  
**METHOD USED:**

**AUTOIGNITION TEMPERATURE:**  
F: 905 DEG  
C: 485 DEG

**NFPA HAZARD CLASSIFICATION**  
HEALTH: N/A                      **FLAMMABILITY:** N/A                      **REACTIVITY:** N/A  
OTHER: N/A

**HMIS HAZARD CLASSIFICATION**  
HEALTH: N/A                      **FLAMMABILITY:** N/A                      **REACTIVITY:** N/A  
PROTECTION: N/A

**EXTINGUISHING MEDIA:** WATER SPRAY (FOG), FOAM, DRY CHEMICAL OR CARBON DIOXIDE.

**SPECIAL FIRE FIGHTING PROCEDURES:** FIRE FIGHTERS SHOULD WEAR POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS (SCBA).

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** NONE

**HAZARDOUS DECOMPOSITION PRODUCTS:** TRACE AMOUNTS OF TOXIC FUMES MAY BE RELEASED ON INCINERATION AND THE USE OF BREATHING APPARATUS IS RECOMMENDED.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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**ACCIDENTAL RELEASE MEASURES:** VENTILATE AREA. DO NOT SUE CLOTHS FOR MOPPING UP. FLOOD WITH WATER TO COMPLETE POLYMERIZATION AND SCRAPE OFF THE FLOOR. CURED MATERIAL CAN BE DISPOSED OF AS NON-HAZARDOUS WASTE.

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## SECTION 7: HANDLING AND STORAGE

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HANDLING AND STORAGE: AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. AVOID BREATHING VAPOR AND MIST. WASH THOROUGHLY AFTER HANDLING. AVOID CONTACT WITH FABRIC OR PAPER GOODS. CONTACT WITH THESE MATERIALS MAY CAUSE RAPID POLYMERIZATION WHICH CAN GENERATE SMOKE AND STRONG IRRITATING VAPORS, AND CAUSE THERMAL BURNS.

KEEP IN A COOL, WELL VENTILATED AREA AWAY FROM HEAT, SPARKS, AND OPEN FLAME. KEEP CONTAINER TIGHTLY CLOSED UNTIL READY FOR USE.

OTHER PRECAUTIONS: N/A

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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ENGINEERING CONTROLS: USE POSIIVE DOWN-DRAFT EXHAUST VENTILATION IF GENERAL VENTILATION IS INSUFFICIENT TO MAINTAIN VAPOR CONCENTRATION BELOW ESTABLISHED EXPOSURE LIMITS.

VENTILATION: N/A

RESPIRATORY PROTECTION: USE NIOSH APPROVED RESPIRATOR IF THERE IS POTENTIAL TO EXCEED EXPOSURE LIMITS.

EYE PROTECTION: CHEMICAL SPLASH GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS

SKIN PROTECTION: USE NITRILE GLOVES AND APRONS AS NECESSARY TO PREVENT CONTACT. DO NOT USE PVC, NYLON OR COTTON.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: N/A

WORK HYGIENIC PRACTICES: N/A

EXPOSURE GUIDELINES: N/A

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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APPEARANCE: CLEAR COLORLESS

ODOR: SHARP, IRRITATING

PHYSICAL STATE: LIQUID

pH AS SUPPLIED: N/A

pH (Other): N/A

BOILING POINT:

F: > 300 DEG

C > 149

MELTING POINT: N/A

F: N/A

C: N/A

FREEZING POINT: N/A

F: N/A

C: N/A

VAPOR PRESSURE (mmHg): < 0.5 MM HG

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F: 77 DEG

C: 25 DEG

VAPOR DENSITY (AIR = 1): APPROXIMATELY 3

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F: N/A

C: N/A

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F: N/A

C: N/A

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EVAPORATION RATE: N/A

BASIS (=1): N/A

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (con't)

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SOLUBILITY IN WATER: POLYMERIZES IN PRESENCE OF WATER

PERCENT SOLIDS BY WEIGHT:

PERCENT VOLATILE: N/A

BY WT/ BY VOL @

F: N/A

C: N/A

VOLATILE ORGANIC COMPOUNDS (VOC):

WITH WATER: < 20 LBS/GAL  
WITHOUT WATER: N/A LBS/GAL

MOLECULAR WEIGHT: N/A

VISCOSITY: N/A

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F: N/A

C: N/A

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## SECTION 10: STABILITY AND REACTIVITY

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STABILITY: STABLE UNDER RECOMMENDED STORAGE CONDITIONS

CONDITIONS TO AVOID (STABILITY): N/A

INCOMPATIBILITY (MATERIAL TO AVOID): WATER, AMINES, ALKALIS AND ALCOHOLS

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: NONE

HAZARDOUS POLYMERIZATION: RAPID EXOTHERMIC POLYMERIZATION WILL OCCUR IN THE PRESENCE OF WATER, AMINES, ALKALIS AND ALCOHOLS

CONDITIONS TO AVOID (POLYMERIZATION): SPONTANEOUS POLYMERIZATION

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## SECTION 11: TOXICOLOGICAL INFORMATION

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TOXICOLOGICAL INFORMATION:

ACUTE ORAL LD50 >5000 MG/KG (RAT)(ESTIMATED).

ACUTE ORAL LD50 > 2000 MG/KG (RABBIT)(ESTIMATED).

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## SECTION 12: ECOLOGICAL INFORMATION

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ECOLOGICAL INFORMATION: N/A

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## SECTION 13: DISPOSAL CONSIDERATIONS

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WASTE DISPOSAL METHOD: COMPLY WITH FEDERAL, STATE, LOCAL REGULATIONS.

RCRA HAZARD CLASS: NOT A RCRA HAZARDOUS WASTE

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## SECTION 13: DISPOSAL CONSIDERATIONS (con't)

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## SECTION 14: TRANSPORT INFORMATION

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### U.S. DEPARTMENT OF TRANSPORTATION

PROPER SHIPPING NAME: COMBUSTIBLE LIQUIDS, N.O.S. (CYANOACRYLATE ESTER)  
HAZARD CLASS: COMBUSTIBLE LIQUID  
ID NUMBER: NA 1993  
PACKING GROUP: NONE  
LABEL STATEMENT: N/A

### WATER TRANSPORTATION

PROPER SHIPPING NAME: UNRESTRICTED  
HAZARD CLASS: N/A  
ID NUMBER: N/A  
PACKING GROUP: N/A  
LABEL STATEMENTS: N/A

### AIR TRANSPORTATION

PROPER SHIPPING NAME: AVIATION REGULATED LIQUIDS, N.O.S. (CYANOACRYLATE ESTER)  
HAZARD CLASS: 9  
ID NUMBER: UN 3334  
PACKING GROUP: NONE  
LABEL STATEMENTS: N/A

OTHER AGENCIES: N/A

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## SECTION 15: REGULATORY INFORMATION

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### U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): ALL COMPONENTS ARE LISTED OR ARE EXEMPT FROM LISTING ON THE TOXIC SUBSTANCES CONTROL ACT INVENTORY

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): N/A

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):

311/312 HAZARD CATEGORIES: IMMEDIATE HEALTH HAZARD, DELAYED HEALTH HAZARD, FIRE REACTIVE.

313 REPORTABLE INGREDIENTS: 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.

STATE REGULATIONS: N/A

### INTERNATIONAL REGULATIONS:

#### CANADA REGULATORY INFORMATION:

CEPA DSL/NDL STATUS: ALL COMPONENTS ARE LISTED ON OR ARE EXEMPT FROM LISTING ON THE DOMESTIC SUBSTANCES LIST.

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## SECTION 16: OTHER INFORMATION

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OTHER INFORMATION: N/A

PREPARATION INFORMATION: N/A

DISCLAIMER: IN COMPLIANCE WITH THE OSHA HAZARD COMMUNICATION STANDARD, 2.9 C.F.R

# **MATERIAL SAFETY DATA SHEET**

**MSDS DATE:08/07/07**

**1910. 1200, WE ARE PROVIDING YOU WITH A MSDS FOR THE HAZARDOUS MATERIAL YOU ARE PURCHASING.**

**IT IS YOUR RESPONSIBILITY TO EDUCATE YOUR EMPLOYEES ON THE SAFE USE OF THE HAZARDOUS MATERIAL.**

**ELECTRON MICROSCOPY SCIENCES MAKES NO PRESENTATION AS TO THE ACCURACY OF THE INFORMATION IN THE MSDS. THE INFORMATION IS BELIEVED TO BE CORRECT; HOWEVER, YOU (THE CUSTOMER), SHOULD PERFORM YOUR OWN INVESTIGATION AND INDEPENDENT VERIFICATION. IF YOU RESELL THE PRODUCT, YOU ARE RESPONSIBLE TO FORWARD THE INFORMATION IN THE MSDS TO YOUR CUSTOMER.**