



A GIBRALTAR INDUSTRIES COMPANY

14305 Southcross Drive,
Suit 200
Burnsville, MN 55306
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CIA-GEL 7000 MSDS

HAZARD RATING:	0=LEAST
HEALTH: 1	1=SLIGHT
FIRE: 1	2=MODERATE
REACTIVITY: 0	3=HIGH
HAZARD CODE: J	4=EXTREME

I. IDENTIFICATION

PRODUCT NAME: COVERT INJECTION ADHESIVE (CIA-GEL #7000); PART A
CHEMICAL NAME: DIGLYCIDYL ETHER OF BISPENOL A/NEOPENTYL GLYCOL DIGLYCIDYL ETHER MIXTURE.
SYNONYMS: PROPRIETARY
CHEMICAL FAMILY: EPOXY RESIN

II. HAZARDOUS INGREDIENTS

MATERIAL	%	TLV	HAZARD DATA
DIGLYCIDYL ETHER OF BISPENOL A (CAS #25085-99-8)	80-85	N.E.	ORL-RAT LD50: >10 GM/KG DER-RBT LD50: > 6 GM/KG IPR-RAT LD50: 2400MG/KG
NEOPENTYL GLYCOL DIGLYCIDYL ETHER (CAS #17557-23-2)	5-10	N.E.	ORL-RAT LD50: >4.5 GM/KG

N.E. = NOT ESTABLISHED
N.A. = NOT APPLICABLE

III. PHYSICAL DATA

BOILING POINT, 760 MMHG:	200 °C	VAPOR PRESSURE AT 20 °C:	<1 MMHG
VAPOR DENSITY (AIR=1):	>1	SOLUBILITY IN WATER:	SLIGHT
SPECIFIC GRAVITY (H2O=1):	1.21 ±0.1	PERCENT VOLATILE BY VOL:	<1%
EVAPORATION RATE (BUTYL ACETATE=1):	N.A.	ODOR:	MILD

IV. FIRE AND EXPLOSION HAZARD DATA

- FLASH POINT (TEST METHOD): 135 °C (275 °F) PMCC
- FLAMMABLE LIMITS IN AIR, BY VOLUMELOWER: NOT DETERMINED UPPER: NOT DETERMINED
- EXTINGUISHING MEDIA: FOAM CO2, DRY CHEMICAL OR WATER SPRAY
- SPECIAL FIRE FIGHTING PROCEDURES: WATER SHOULD BE USED TO KEEP FIRE-EXPOSED CONTAINERS COOL. IF A LEAK OR SPILL HAS NOT IGNITED, USE WATER SPRAY TO DISPERSE THE VAPORS AND TO PROTECT PERSONS ATTEMPTING TO STOP A LEAK. DO NOT ENTER CONFINED FIRE SPACE WITHOUT SELF-CONTAINED BREATHING APPARATUS TO PROTECT FROM FUMES. UNUSUAL FIRE AND EXPLOSION HAZARDS: NO UNUSUAL HAZARDS.

V. HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE

- EYE: MAY CAUSE MINOR TRANSIENT IRRITATION. NO CORNEAL INJURY LIKELY.
- SKIN: MAY CAUSE MINOR IRRITATION, MAY CAUSE SKIN SENSITIZATION. NOT LIKELY TO BE ABSORBED IN TOXIC AMOUNTS.
- INGESTION: LOW IN TOXICITY.
- INHALATION: RESPIRATORY TRACT IRRITATION NOT LIKELY.

EMERGENCY FIRST AID PROCEDURES:

- EYE: FLUSH WITH RUNNING WATER FOR 15 MINUTES. CONSULT PHYSICIAN.
- SKIN: WASH PROMPTLY WITH SOAP AND WATER.
- INGESTION: SEEK MEDICAL ASSISTANCE IMMEDIATELY.
- INHALATION: REMOVE PERSON TO FRESH AIR. SEEK MEDICAL ATTENTION IF NEEDED.

NOTE TO PHYSICIAN:

- PREEXISTING SKIN ALLERGIES MAY INCREASE THE CHANCE OF DEVELOPING INCREASED ALLERGY SYMPTOMS FROM EXPOSURE. ALLERGY (SKIN SENSITIZATION) MAY BE EVIDENCED BY RASHES, ESPECIALLY HIVES. PREEXISTING SKIN AND EYE DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT. TREAT AS ANY CONTACT DERMATITIS. INJURY TO EYES IS UNLIKELY. STAIN FOR EVIDENCE OF CORNEAL INJURY.
- SYSTEMIC EFFECTS. HUMAN EFFECTS NOT ESTABLISHED. NO SPECIFIC ANTIDOTE. TREATMENT BASED ON THE SOUND JUDGEMENT OF THE PHYSICIAN AND THE INDIVIDUAL REACTIONS OF THE PATIENT.

VI. REACTIVITY DATA

- STABILITY: STABLE.
- CONDITIONS TO AVOID: EXCESS HEATING OVER LONG PERIODS OF TIME DEGRADES RESIN.
- INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDATION AGENTS, STRONG LEWIS OR MINERAL ACIDS AND CAUSTICS.
- HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: NONE UNDER NORMAL USE. CO, ALDEHYDES AND ACIDS MAY BE FORMED DURING COMBUSTION.
- HAZARDOUS POLYMERIZATION: WILL NOT OCCUR ON ITS OWN.

VII. SPILL OR LEAK PROCEDURES

- STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: ABSORB WITH INERT MATERIAL (CLAY, SAND, ETC.) AND PLACE IN APPROPRIATE CONTAINERS WITH NON-SPARKING TOOLS.
- WASTE DISPOSAL METHOD: DISPOSE OF MATERIAL ACCORDING TO ALL FEDERAL, STATE AND LOCAL LAWS.

VIII. SPECIAL PROTECTION INFORMATION

- RESPIRATORY PROTECTION: NONE NORMALLY NEEDED. USE A NIOSH RESPIRATOR WITH VAPOR/GAS FILTER FOR PERSONAL COMFORT.
- VENTILATION: GOOD ROOM VENTILATION USUALLY ADEQUATE FOR MOST OPERATION.
- SKIN PROTECTION: CLEAN, BODY-COVERING CLOTHING AND WEAR IMPERVIOUS TYPE GLOVES TO MINIMIZE CONTACT.
- EYE PROTECTION: SAFETY GLASSES/ CHEMICAL GOGGLES.

IX. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: STORE IN A COOL, DRY PLACE. KEEP AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES. PRACTICE GOOD CAUTION AND PERSONAL CLEANLINESS TO AVOID SKIN AND EYE CONTACT. AVOID BREATHING VAPORS OF HEATED MATERIAL.

OTHER DATA:

DOT	SHIPPING NAME NOT REGULATED
DOT	LABEL: N.A.
UPS	NOT REGULATED
IATA	NOT RESTRICTED
IATA	LABEL: N.A.
IATA	PACKING GROUP: N.A.
IMO	CLASS: N.A.
IMO	STATEMENT: N.A.
VESSEL STOWAGE : N.A.	

CONTENTS OF PRECAUTIONARY LABEL:

DANGER! MAY CAUSE EYE AND SKIN IRRITATION POTENTIAL SKIN SENSITIZER. PREVENT CONTACT WITH EYES AND SKIN, WASH THOROUGHLY AFTER HANDLING. REMOVE AND WASH CONTAMINATED CLOTHING BEFORE REUSE. CONTAMINATED LEATHER SHOES SHOULD BE DISCARDED. SEE MSDS FOR DETAILS. FIRST AID EYE CONTACT: IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER OR MINERAL OIL FOR AT LEAST 15 MINUTES [GET MEDICAL ATTENTION]. SKIN CONTACT: WIPE OFF SKIN CONTAMINATION AND PROMPTLY WASH WITH SOAP AND WATER. INGESTION: IF CONSCIOUS, GIVE WATER AND INDUCE VOMITING BY INSERTING FINGER DOWN THROAT, OBTAIN MEDICAL TREATMENT. INHALATION: IMMEDIATELY MOVE TO FRESH AIR, KEEP VICTIM QUIET. ADMINISTER CPR AND/OR OXYGEN AS REQUIRED, OBTAIN MEDICAL ASSISTANCE. SPILL: WIPE UP WITH ABSORBENT MATERIAL AND DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. FIRE FIGHTING: USE CO2, FOAM OR DRY CHEMICAL. DO NOT ENTER A CONFINED AREA WITHOUT SBCA. PRODUCT CONTAINS: SEE SECTION II FOR HAZARDOUS INGREDIENTS -FOR INDUSTRIAL USE ONLY WARNING: THIS CONTAINER HAZARDOUS WHEN EMPTY. SINCE EMPTY CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID OR SOLIDS) ALL LABELED HAZARDOUS PRECAUTIONS MUST BE OBSERVED. DO NOT REUSE "EMPTY CONTAINER" FOR FOOD, CLOTHING OR PRODUCTS FOR HUMAN OR ANIMAL CONSUMPTION OR SKIN CONTACT WITHOUT PROFESSIONAL CLEANING.

X. DISCLAIMER

- THE INFORMATION EXPRESSED HEREIN IS BASED UPON DATA BELIEVED TO BE CORRECT. HOWEVER, NO GUARANTEE OR WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, IS MADE WITH RESPECT TO THE INFORMATION CONTAINED HEREIN.
- CONTACT COVERT OPERATIONS' TECHNICAL DEPARTMENT FOR ANY FURTHER INFORMATION OR RECOMMENDATIONS

DATE: 01-MAR-90

REVISION DATE: 01-JAN-2006

24HR EMERGENCY CONTACT NUMBER 800-424-9300



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REACTIVITY: 0 3=HIGH
HAZARD CODE:A 4=EXTREME

I. IDENTIFICATION

PRODUCT NAME: COVERT INJECTION ADHESIVE (CIA-GEL #7000); PART B
CHEMICAL NAME: N-AMINOETHYL PIPERAZINE/ NONYL PHENOL MIXTURE.
SYNONYMS: PROPRIETARY
CHEMICAL FAMILY: AMINE ADDUCT

II. HAZARDOUS INGREDIENTS

MATERIAL	%	TLV	HAZARD DATA
N-AMINOETHYL PIPERAZINE (CAS #140-31-8)	15-20	1 PPM SKIN	ORL-RAT LD50: 2150 MG/KG DER-RBT LD50: 900 MG/KG
NONYL PHENOL (CAS #25154-52-3)	10-15	N.E.	ORL-RAT LD50: 580 MG/KG DER-RBT LD50: 2140 MG/KG

N.E. = NOT ESTABLISHED N.A. = NOT APPLICABLE

III. PHYSICAL DATA

BOILING POINT, 760 MMHG:	>200 °C	VAPOR PRESSURE AT 20 °C:	<1 MMHG
VAPOR DENSITY (AIR=1):	>1	SOLUBILITY IN WATER:	SLIGHT
SPECIFIC GRAVITY (H ₂ O=1):	1.74 ±0.1	PERCENT VOLATILE BY VOL:	<1%
EVAPORATION RATE (BUTYL ACETATE=1):	N.A.	APPEARANCE:	WHITE VISCOUS LIQUID
ODOR:	AMINE		

IV. FIRE AND EXPLOSION HAZARD DATA

- FLASH POINT (TEST METHOD): >93 °C
- FLAMMABLE LIMITS IN AIR, BY VOLUME LOWER: NOT DETERMINED UPPER: NOT DETERMINED
- EXTINGUISHING MEDIA: CARBON DIOXIDE OR DRY CHEMICAL FOR SMALL FIRES.
POLYMER FOAM FOR LARGE FIRES.
- SPECIAL FIRE FIGHTING PROCEDURES: WATER SPRAY WILL REDUCE INTENSITY OF FLAMES. A SOLID STREAM OF WATER DIRECTED INTO HOT, BURNING LIQUID COULD CAUSE FROTHING. USE SELF-CONTAINED BREATHING APPARATUS. UNUSUAL FIRE & EXPLOSION HAZARDS: OXIDES OF CARBON WILL BE EVOLVED BY FIRE.

V. HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE

- EYE: MAY CAUSE MODERATE TO SEVERE EYE INJURY.
- SKIN: BRIEF CONTACT (3-5 MIN.) MAY CAUSE MODERATE TO SEVERE BURN. THIS MATERIAL MAY CAUSE SIGNIFICANT SENSITIZATION OR ALLERGIC RESPONSE. MAY BE ABSORBED IN MODERATELY TOXIC AMOUNTS.
- INGESTION: MAY CAUSE BURNS OF MOUTH, ESOPHAGUS AND POSSIBLY STOMACH.
- INHALATION: ACGIH TLV IS 1 PPM, 4 MG/CU METER. MAY CAUSE ALLERGIC ASTHMA. VAPORS IRRITATING. EFFECTS OF OVEREXPOSURE: DISAGREEABLE ODOR. IRRITATION OF EYES, NOSE, THROAT AND LUNGS. MAY CAUSE SENSITIZATION BY LIQUID OR VAPOR.

EMERGENCY FIRST AID PROCEDURES:

- EYE: IMMEDIATE AND CONTINUOUS IRRIGATION WITH FLOWING WATER FOR AT LEAST 30 MIN. IS IMPERATIVE. PROMPT MEDICAL CONSULTATION ESSENTIAL.
- SKIN: SKIN BURN LIKELY. IMMEDIATE, CONTINUOUS AND THOROUGH WASHING IN FLOWING WATER FOR 30 MIN. IS INDICATED. REMOVE CLOTHING IMMEDIATELY. CALL PHYSICIAN AND/OR TRANSPORT TO MEDICAL FACILITY. DESTROY CONTAMINATED SHOES. WASH CLOTHING BEFORE REUSE.
- INGESTION: CORROSIVE. DO NOT INDUCE VOMITING. GIVE LARGE AMOUNTS OF WATER OR MILK IF AVAILABLE AND TRANSPORT TO MEDICAL FACILITY.
- INHALATION: REMOVE TO FRESH AIR IF EFFECTS OCCUR. CALL PHYSICIAN AND/OR TRANSPORT TO MEDICAL FACILITY.

NOTE TO PHYSICIAN:

- EYES: MAY CAUSE SEVERE CORNEAL INJURY OR BURN. MAY CAUSE IMPAIRMENT OF VISION. STAIN FOR EVIDENCE OF CORNEAL INJURY. IF CORNEA IS BURNED, INSTILL ANTIBIOTIC STEROID PREPARATION FREQUENTLY. CONSULT OPHTHALMOLOGIST.
- SKIN: MAY CAUSE SEVERE BURN. IF BURN IS PRESENT, TREAT AS ANY THERMAL BURN. MAY BE ABSORBED IN ACUTELY TOXIC AMOUNTS. KNOWN OR SUSPECTED SKIN SENSITIZER.
- RESPIRATORY: MAY CAUSE SEVERE IRRITATION. ADMINISTER OXYGEN IF AVAILABLE. BRONCHODILATORS, EXPECTORANTS AND ANTITUSSIVES MAY BE OF HELP. MAY CAUSE RESPIRATORY SENSITIZATION OR ASTHMA
- ORAL: LOW IN TOXICITY. MAY CAUSE BURN OF MUCOUS MEMBRANES. IF LAVAGE IS PERFORMED, SUGGEST ENDOTRACHEAL AND/OR ESOPHAGOSCOPIC CONTROL.
- SYSTEMIC: CONSULT STANDARD LITERATURE. NO SPECIFIC ANTIDOTE. TREATMENT BASED ON SOUND JUDGMENT OF THE PHYSICIAN AND THE INDIVIDUAL REACTIONS OF THE PATIENT. RAT STUDIES INDICATE KIDNEY AND LIVER ARE TARGET ORGANS WITH OVEREXPOSURE.

VI. REACTIVITY DATA

- STABILITY: STABLE.
- CONDITIONS TO AVOID: EXTREME HEAT AND FIRES.

- INCOMPATIBILITY (MATERIALS TO AVOID): STRONG MINERAL ACIDS AND STRONG OXIDIZING AGENTS SUCH AS NITRIC ACID, LIQUID OXYGEN AND OZONE.
- HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: THERMAL DECOMPOSITION OR BURNING MAY PRODUCE NITROGEN OXIDES, CARBON MONOXIDE AND/OR CARBON DIOXIDE.
- HAZARDOUS POLYMERIZATION: WILL NOT OCCUR BY ITSELF.

VII. SPILL OR LEAK PROCEDURES

- STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: (USE APPROPRIATE SAFETY EQUIPMENT) : LARGE SPILL - DIKE UP AND DILUTE WITH COPIOUS QUANTITIES OF WATER. PUMP INTO APPROPRIATE CONTAINERS. SMALL SPILL - DILUTE WITH WATER. ABSORB SPILL WITH SAND, EARTH, OR VERMICULITE. COLLECT INTO CLOSED CONTAINER FOR DISPOSAL.
- WASTE DISPOSAL METHOD: DISPOSE OF MATERIAL ACCORDING TO ALL FEDERAL, STATE AND LOCAL LAWS.

VIII. SPECIAL PROTECTION INFORMATION

- RESPIRATORY PROTECTION: APPROVED RESPIRATORY PROTECTION REQUIRED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. FOR EMERGENCIES, A POSITIVE-PRESSURE BREATHING APPARATUS OR A FULL-FACE RESPIRATOR WITH AN APPROVED ORGANIC VAPOR CANISTER IS RECOMMENDED.
- VENTILATION: GENERAL EXHAUST USUALLY ACCEPTABLE. LOCAL EXHAUST IS PREFERRED.
- SKIN PROTECTION: RUBBER GLOVES AND CLEAN, BODY-COVERING CLOTHING.
- EYE PROTECTION: CHEMICAL GOGGLES. FACE SHIELD RECOMMENDED WHERE LIQUID CONTACT IS POSSIBLE.

IX. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: KEEP CONTAINERS CLOSED WHEN NOT IN USE. STORE IN A DRY PLACE AWAY FROM HEAT.

OTHER DATA

- DOT INFORMATION: ALKYL AMINE N.O.S. (N-AMINOETHYLPIPERAZINE, NONYL PHENOL) CORROSIVE LIQUID UN2735
DOT LABEL: CORROSIVE (8)
ERG: 60
- UPS INFORMATION: ALKYLAMINE N.O.S. (N-AMINOETHYLPIPERAZINE, NONYL PHENOL) CORROSIVE LIQUID UN2735
- IATA INFORMATION: ALKYLAMINE N.O.S. (N-AMINOETHYLPIPERAZINE, NONYL PHENOL) CORROSIVE LIQUID UN2735
IATA LABEL: CORROSIVE (8)
ERG: 60
PACKAGING GROUP: III
IATA PACKAGING: 818 [P] 820 [C]
- IMO CLASS: 8
- VESSEL STORAGE: 1, 2 [C] 1, 2 [P]
- CONDITIONS TO AVOID: EXTREME HEAT AND FIRES.
- INCOMPATIBILITY (MATERIALS TO AVOID): STRONG MINERAL ACIDS AND STRONG OXIDIZING AGENTS SUCH AS NITRIC ACID, LIQUID OXYGEN AND OZONE.
- HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: THERMAL DECOMPOSITION OR BURNING MAY PRODUCE NITROGEN OXIDES, CARBON MONOXIDE AND/OR CARBON DIOXIDE.
- HAZARDOUS POLYMERIZATION: WILL NOT OCCUR BY ITSELF.

DATE: 01-MAR-90

REVISION DATE: 01-JAN-2006

24HR EMERGENCY CONTACT NUMBER 800-424-9300

HAZARD STATEMENT: THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD 29 CFR 1910. 1200. THIS PRODUCT IS CONSIDERED TO BE A HAZARDOUS CHEMICAL UNDER THAT STANDARD.