

Click Bond - CB359 Part A - Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: **CB359 Part A**
CLICK BOND, INC.
2151 LOCKHEED WAY
CARSON CITY, NV 89706

Product Use/Class: **Adhesive for the Aerospace Industry**
INFORMATION TELEPHONE #: (775) 885-8000
EMERGENCY TELEPHONE #: (800) 255-3924 (CHEM•TEL)
OUTSIDE NORTH AMERICA #: (813) 248-0585 CALL COLLECT
PREPARED BY: Engineering Dept. (775) 885-8000

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state: Paste
Color: Yellow
Odor: Slight

HMIS:

HEALTH: *2
FLAMMABILITY: 1
PHYSICAL HAZARD: 1
Personal Protection: See MSDS Section 8

WARNING: CAUSES EYE IRRITATION.
MAY CAUSE ALLERGIC SKIN REACTION.
MAY CAUSE SKIN AND RESPIRATORY TRACT IRRITATION.

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects

Inhalation: May cause irritation to nose and throat.
Skin contact: May cause allergic skin reaction. May cause skin irritation.
Eye contact: May cause irritation.
Ingestion: Not expected to be harmful by ingestion.

Existing conditions aggravated by exposure: Eye disorders. Skin disorders. Skin allergies.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components	CAS Number	%
Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	30 - 60
p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	5026-74-4	10 - 30
CP Acrylonitrile-butadiene-styrene	9003-56-9	10 - 30
Glass, oxide, chemicals	65997-17-3	1 - 5
Treated fumed silica	67762-90-7	1 - 5

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. If symptoms develop and persist, get medical attention.

Skin contact: Remove contaminated clothing and footwear. Wash with soap and water. If a person feels unwell or symptoms of skin irritation appear, consult a physician.

Eye contact: In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.

Ingestion: DO NOT induce vomiting unless directed to do so by medical personnel. If symptoms develop and persist, get medical attention.

5. FIRE FIGHTING MEASURES

Flash point:	> 93°C (> 199.4°F); Estimated
Autoignition temperature:	Not determined
Flammable/Explosive limits - lower:	Not determined
Flammable/Explosive limits - upper:	Not determined
Extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide.
Special firefighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. Cartridge respirators do not provide adequate protection for fire fighters or exotherm mitigation.
Unusual fire or explosion hazards:	May liberate large quantities of dense, foul-smelling smoke which may contain unidentified toxic gasses.
Hazardous combustion products:	Oxides of carbon and nitrogen, aldehydes, acids and undetermined organics.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Do not allow material to contaminate ground water system.

Clean-up methods: Scrape up as much material as possible. Store in a partly filled, closed container until disposal.

7. HANDLING AND STORAGE

Handling: For the Part A plus Part B adhesive mixture, follow curing schedule as recommended in product literature. Do not heat Part A at temperatures greater than 80°C (176°F). This material may self-react at higher temperatures and cause an exotherm. The exotherm has the potential for release of excessive energy and toxic gasses. Empty containers retain product residue, so obey hazard warnings and handle empty containers as if they were full.

Storage: For safe storage, store at or below 25°C (77°F)

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None
p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	None	None	None	None
CP Acrylnitrile-butadiene-styrene	None	None	None	None
Glass, oxide, chemicals	10 mg/m ³ TWA Inhalable dust. 3 mg/m ³ TWA Respirable fraction.	None	None	None
Treated fumed silica	10 mg/m ³ TWA Inhalable dust. 3 mg/m ³ TWA Respirable fraction.	15 mg/m ³ TWA Total dust. 5 mg/m ³ TWA Respirable fraction.	None	None

Engineering controls: Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Respiratory protection: Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists.

Eye/face protection: Wear appropriate goggles, face shields or other PPE which will be effective under the circumstances if the possibility of contact exists.

Skin protection: Use impermeable gloves and protective clothing as necessary to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Paste	Boiling point/range:	Not determined
Color:	Yellow	Melting point/range:	Not determined
Odor:	Slight	Flash point:	> 93°C (> 199.4°F); Estimated
Odor threshold:	Not available	Flammable/Explosive limits - lower:	Not determined
pH:	Neutral	Flammable/Explosive limits - upper:	Not determined
Vapor pressure:	Negligible	Autoignition temperature:	Not determined
Vapor density:	> 1	Evaporation rate:	Not determined
Specific gravity:	1.16	Solubility in water:	Negligible

Partition coefficient (n-octanol/water): Not determined

VOC content: < 10 g/l per SCAQMD Rule 1124 [EPA Test Method 24/304-91] (estimated)

10. STABILITY AND REACTIVITY

Stability:	Stable
Hazardous reactions:	May occur.
Hazardous decomposition products:	Oxides of carbon and nitrogen, aldehydes, acids and undetermined organics.
Incompatible materials:	Keep away from strong oxidizing agents, strong Lewis or mineral acids.
Conditions to avoid:	Avoid mixing resin (Part A) and curing agent (Part B) unless you plan to use immediately. Do not heat mixed adhesive unless you plan to use immediately. Failure to observe these precautions may result in excessive heat build-up causing an exotherm.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No
p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	No	No	No
CP Acrylnitrile-butadiene-styrene	No	No	No
Glass, oxide, chemicals	No	No	No
Treated fumed silica	No	No	No

Hazardous components	Health Effects/Target Organs
Epichlorohydrin-4,4'-isopropylidene diphenol resin	Allergen, Irritant
p-(2,3-Epoxypropoxy)-N,N-bis(2,3-epoxypropyl)aniline	Allergen, Irritant, Mutagen
CP Acrylnitrile-butadiene-styrene	No Target Organs
Glass, oxide, chemicals	Allergen, Respiratory
Treated fumed silica	Irritant

12. ECOLOGICAL INFORMATION

Ecological information: Not available

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Bisphenol-A Epichlorhydrine resin, Triglycidyl-p-aminophenol)
Hazard class or division: 9
Identification number: UN 3077
Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bisphenol-A Epichlorhydrine resin, Triglycidyl-p-aminophenol)
Hazard class or division: 9
Identification number: UN 3077
Packing group: III
Marine pollutant: Bisphenol-A Epichlorhydrine resin, Triglycidyl-p-aminophenol

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12(b) Export Notification: None above reporting de minimus
CERCLA/SARA Section 302 EHS: None above reporting de minimus
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA 313: None above reporting de minimus
California Proposition 65: This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
WHMIS hazard class: D.2.A, D.2.B

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: completely rewritten in new Material Safety Data Sheet format.

Prepared by: Click Bond Engineering department

DISCLAIMER: The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

Click Bond - CB359 Part B - Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: **CB359 Part B**
CLICK BOND, INC.
2151 LOCKHEED WAY
CARSON CITY, NV 89706

Product Use/Class: **Adhesive for the Aerospace Industry**
INFORMATION TELEPHONE #: (775) 885-8000
EMERGENCY TELEPHONE #: (800) 255-3924 (CHEM•TEL)
OUTSIDE NORTH AMERICA #: (813) 248-0585 CALL COLLECT
PREPARED BY: Engineering Dept. (775) 885-8000

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state: Liquid
Color: Blue
Odor: Rubber-like

HMIS:
HEALTH: *3
FLAMMABILITY: 1
PHYSICAL HAZARD: 1
Personal Protection: See MSDS Section 8

DANGER - CORROSIVE!: **MAY CAUSE EYE, SKIN AND RESPIRATORY BURNS.**
MAY CAUSE ALLERGIC SKIN REACTION.
MAY BE HARMFUL IF SWALLOWED, ABSORBED THROUGH SKIN OR INHALED.

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects

Inhalation: Mists, vapors or liquid may cause severe irritation or burns. May be harmful if inhaled.

Skin contact: This product is severely irritating to the skin and may cause burns. This product may cause an allergic skin reaction.

Eye contact: This product is severely irritating to the eyes and may cause irreversible damage including burns and blindness.

Ingestion: Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract. May be harmful if swallowed.

Existing conditions aggravated by exposure: Eye, skin, and respiratory disorders.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components	CAS Number	%
Substituted piperazine	Proprietary	30 - 60
Polyglycol diamine	Proprietary	10 - 30
Silica, amorphous, fumed, crystal-free	112945-52-5	5 - 10
Benzyl alcohol	100-51-6	1 - 5
Polyamine	Proprietary	1 - 5
Cycloaliphatic amine	Proprietary	1 - 5
Substituted Piperazine	Unknown	1 - 5

4. FIRST AID MEASURES

Inhalation: If inhaled, immediately remove the affected person to fresh air. If symptoms develop and persist, get medical attention. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Skin contact: Remove contaminated clothing and footwear. Immediately wash skin thoroughly with soap and water. If symptoms develop and persist, get medical attention.

Eye contact: In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.

Ingestion: Get immediate medical attention. Do not induce vomiting.

Notes to physician: Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

Flash point:	> 93°C (> 199.4°F); Estimated
Autoignition temperature:	Not determined
Flammable/Explosive limits - lower:	Not determined
Flammable/Explosive limits - upper:	Not determined
Extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide.
Special firefighting procedures:	Wear full protective clothing. Wear self-contained breathing apparatus.
Unusual fire or explosion hazards:	May liberate large quantities of dense, foul-smelling smoke which may contain unidentified toxic gasses.
Hazardous combustion products:	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Oxides of nitrogen.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Wear appropriate protective equipment and clothing during clean-up. Prevent further leakage or spillage if safe to do so. Do not allow product to enter sewer or waterways.

Clean-up methods: Scrape up spilled material and place in a closed container for disposal. Dispose of according to Federal, State and local governmental regulations.

7. HANDLING AND STORAGE

Handling: For the Part A plus Part B adhesive mixture, follow curing schedule as recommended in product literature. Do not heat Part B at temperatures greater than 100°C (212°F). This material may self-react at higher temperatures and cause an exotherm. The exotherm has the potential for release of excessive energy and toxic gasses. Empty containers retain product residue, so obey hazard warnings and handle empty containers as if they were full. Do not cut, grind, weld, or drill on or near this container.

Storage: For safe storage, store at or below 25°C (77°F)
Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Substituted piperazine	None	None	None	None
Polyglycol diamine	None	None	None	None
Silica, amorphous, fumed, crystal-free	10 mg/m ³ TWA Inhalable dust. 3 mg/m ³ TWA Respirable fraction.	20 MPPCF TWA 0.8 mg/m ³ TWA	None	None
Benzyl alcohol	None	None	10 ppm (44 mg/m ³) TWA	None
Polyamine	None	None	None	None
Cycloaliphatic amine	None	None	None	None
Substituted Piperazine	None	None	None	None

Engineering controls: Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product.

Respiratory protection: If ventilation is not sufficient to effectively prevent buildup of aerosols, mists or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.

Eye/face protection: Wear chemical goggles; face shield (if splashing is possible).

Skin protection: Wear impervious gloves for prolonged contact. Use of impervious apron and boots are recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid	Boiling point/range:	Not applicable
Color:	Blue	Melting point/range:	Not determined
Odor:	Rubber-like	Flash point:	> 93°C (> 199.4°F); Estimated
Odor threshold:	Not available.	Flammable/Explosive limits - lower:	Not determined
pH:	Not determined	Flammable/Explosive limits - upper:	Not determined
Vapor pressure:	Not applicable	Autoignition temperature:	Not determined
Vapor density:	7.6	Evaporation rate:	Not determined
Specific gravity:	1.02	Solubility in water:	Negligible

Partition coefficient (n-octanol/water): Not determined

VOC content: < 10 g/l per SCAQMD Rule 1124 [EPA Test Method 24/304-91] (estimated)

10. STABILITY AND REACTIVITY

Stability:	Stable at normal conditions.
Hazardous reactions:	May occur.
Hazardous decomposition products:	Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons. Oxides of nitrogen.
Incompatible materials:	Keep away from strong oxidizing agents, strong Lewis or mineral acids.
Conditions to avoid:	Avoid mixing resin (Part A) and curing agent (Part B) unless you plan to use immediately. Failure to observe these precautions may result in excessive heat build-up causing an exotherm. Do not heat mixed adhesive unless curing surfaces to be bonded.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Substituted piperazine	No	No	No
Polyglycol diamine	No	No	No
Silica, amorphous, fumed, crystal-free	No	No	No
Benzyl alcohol	No	No	No
Polyamine	No	No	No
Cycloaliphatic amine	No	No	No
Substituted Piperazine	No	No	No

Hazardous components	Health Effects/Target Organs
Substituted piperazine	No Records
Polyglycol diamine	Corrosive
Silica, amorphous, fumed, crystal-free	Nuisance dust
Benzyl alcohol	Allergen, Central nervous system, Corrosive, Irritant
Polyamine	No Records
Cycloaliphatic amine	Irritant, Allergen, Corrosive, Lung
Substituted Piperazine	Irritant, Corrosive, Allergen

12. ECOLOGICAL INFORMATION

Ecological information: Not available

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Dispose of according to Federal, State and local governmental regulations.

Hazardous waste number: This product, if discarded, may be characterized as a RCRA corrosive waste, D002. Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

14. TRANSPORT INFORMATION

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Amines, liquid, corrosive, n.o.s. (Substituted piperazine, Diethyleneglycol aminopropyl ether)
Hazard class or division: 8
Identification number: UN 2735
Packing group: III

International Air Transportation (ICAO/IATA)

Proper shipping name: Amines, liquid, corrosive, n.o.s. (Substituted piperazine, Diethyleneglycol aminopropyl ether)
Hazard class or division: 8
Identification number: UN 2735
Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (Substituted piperazine, Diethyleneglycol aminopropyl ether)
Hazard class or division: 8
Identification number: UN 2735
Packing group: III

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12(b) Export Notification: None above reporting de minimus
CERCLA/SARA Section 302 EHS: None above reporting de minimus
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA 313: None above reporting de minimus
California Proposition 65: No California Proposition 65 listed chemicals are known to be present.

Canada Regulatory Information

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
WHMIS hazard class: D.2.A, D.2.B, E

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: completely rewritten in new Material Safety Data Sheet format.

Prepared by: Click Bond Engineering department

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