



MSDS019

Loctite 380 Black Max® INSTANT ADHESIVE

MATERIAL SAFETY DATA SHEET

Chemical Product and Company Identification

LABEL IDENTIFIER: Loctite® 380 Black Max® INSTANT ADHESIVE

PRODUCT IDENTIFIER: P/N 602976 Black Max Adhesive, 1 oz. Tube; Loctite P/N 38050

COMPANY IDENTIFICATION: Mine Safety Appliances Company

P. O. Box 439

Pittsburgh, PA 15230

CUSTOMER SERVICE: 1-800-MSA-2222 (8:30 am – 5:00 pm USA local time)

EMERGENCY: 1-800-255-3924 (CHEM - TEL, INC.)

Vendor Information

A Material Safety Data Sheet as furnished by Loctite Corporation for Black Max, Black Toughened Adhesive 38050 is attached (4 Pages).

Loctite Corporation MSDS REVISION DATE: 1/3/95

Other Information

WARNING: This is a hazardous chemical product. By following the directions and warnings provided with this product, the hazards associated with the use of this product can be greatly reduced but never entirely eliminated. Mine Safety Appliances Company makes no warranties, expressed or implied, with respect to this product and EXPRESSLY DISCLAIMS THE WARRANTY OF MERCHANTABILITY AND ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. Users assume all risks in handling, using or storing this product.



MATERIAL SAFETY DATA SHEET

1001 Trout Brook Crossing
Rocky Hill, Connecticut 06067-3910
Emergency Phone (203) 571-5100
Fax: (203) 571-5465

I. PRODUCT IDENTIFICATION		PRODUCT NO.: 380
PRODUCT NAME:	Black Max® Black Toughened Adhesive	Issued: 5/1/95
ITEM NUMBERS:	38004, 38050, 38061	
PRODUCT TYPE:	Cyanoacrylate	

II. COMPOSITION

Ingredients	CAS No.	%
Ethyl cyanoacrylate	7085-85-0	85-90
Ethylene copolymer rubber	54545-50-5	7-12
CARBON BLACK	1333-86-4	1-3
PHTHALIC ANHYDRIDE*	85-44-9	0.1-1
HYDROQUINONE	123-31-9	0.1-0.5

* This component is listed as a SARA Section 313 Toxic Chemical.

III. CHEMICAL AND PHYSICAL PROPERTIES

Vapor Pressure:	Less than 0.2mm
Vapor Density:	Approximately 3
Solubility in Water:	Polymerized by water
Specific Gravity:	1.1
Boiling Point:	More than 300°F
Volatile Organic Compound (EPA Method 24)	87.9%
Evaporation Rate (Ether = 1)	Not available
pH:	Does not apply
Appearance:	Viscous, black liquid
Odor:	Sharp, irritating

IV. FLAMMABILITY AND EXPLOSIVE PROPERTIES

Flash Point:	150 - 200°F	Method: Tag Closed Cup
Estimated NFPA Code:		
Health Hazard:	2	
Fire Hazard:	2	
Reactivity Hazard:	2	
Specific Hazard:	No water	
Estimated HMIS Code:		
Health Hazard:	2	
Flammability Hazard:	2	
Reactivity Hazard:	2	
Personal Protection:	See Section X.	
Explosive Limits:		
(% by volume in air) Lower	1.7% Phthalic anhydride	
(% by volume in air) Upper	10.5% Phthalic anhydride	
Recommended Extinguishing Agents:	Carbon dioxide, foam, dry chemical	
Hazardous Products Formed by Fire or Thermal Decomp	Irritating organic vapors	
Unusual Fire or Explosion Hazards:	None	
Compressed Gases:	None	
Pressure at Room Temp.:	Does not apply	

V. SPILL OR LEAK AND DISPOSAL PROCEDURES

Steps to be taken in case of spill or leak:	Flood with water to polymerize completely. Solid polymer is non-hazardous.
Recommended methods of disposal:	After polymerization as above, incinerate following EPA and local regulations. Phthalic anhydride is listed by EPA as hazardous waste.

VI. STORAGE AND HANDLING PROCEDURES

Safe Storage:	Store below 75 deg. F.
(Contact Loctite Customer Service 1-800-243-4874 for Shelf Life Information)	
Handling:	Avoid contact with skin and eyes. Avoid breathing vapor.

VII. SHIPPING REGULATIONS

DOT (49 CFR 172)	
Domestic Ground Transport	
Proper Shipping Name:	Unrestricted (Not more than 450 liters); Combustible liquids, n.o.s. (Cyanoacrylate ester) (More than 450 liters)
Hazard Class or Division:	Unrestricted (Not more than 450 liters)

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Product Name: Black Max(R) Black Tough Adhesive
Item No.: 38004, 38050, 38061

VII. SHIPPING REGULATIONS

(continued)

Identification Number: Combustible liquid (More than 450 liters)
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);
Other regulated substances (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)
ID 8027 (More than one pint)

VIII. REACTIVITY DATA

Stability: Stable
Hazardous Polymerization: Will not occur.
Hazardous Decomposition
Products (non-thermal): None
Incompatibility: Polymerized by contact with water, alcohols,
amines, alkalis.

IX. EMERGENCY TREATMENT PROCEDURES

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.

X. 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: Positive down-draft exhaust ventilation should be
provided to maintain vapor concentration below
TLV.

XI. HEALTH HAZARD DATA

Toxicity: Skin contact may cause burns.
Bonds skin rapidly and strongly.
Skin and eye irritant.
Estimated oral LD50 more than 5000mg/kg.
Estimated dermal LD 50 more than 2000 mg/kg.
None known

Primary Routes of Entry: Vapor is irritating to eyes and mucous membranes
above TLV. Prolonged and repeated overexposure to
vapors may produce allergic reactions with asthma-
like symptoms in sensitive individuals.

Existing Conditions
Aggravated by Exposure: None known

Exposure Limits (TWA)	ACGIH	OSHA	OTHER
Ingredients	(TLV)	(PEL)	
Ethyl cyanoacrylate	None	None	2 ppm TWA 9.1 mg/m ³
CARBON BLACK	3.5 mg/m ³ TWA	3.5 mg/m ³ TWA	5ppm
PTHALIC ANHYDRIDE	1 ppm TWA	1 ppm TWA	None
	0.1 mg/m ³	0.1 mg/m ³	
HYDROQUINONE	2 mg/m ³ TWA	2 mg/m ³ TWA	2 mg/m ³ TWA 4 mg/m ³ STEL

Exposure Limits (STEL)	ACGIH	OSHA
Ingredients	(TLV)	(PEL)
Ethyl cyanoacrylate	(4 ppm) (18 mg/m ³)	(4 ppm) (16 mg/m ³)

Ingredients for which no Exposure Limits have been established are not listed above.

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XI. HEALTH HAZARD DATA

(continued)

Ingredients	Literature Referenced Target Organ and Other Health Effects	Carcinogen		
		NTP	IARC	OSHA
Ethyl cyanoacrylate	ALG IRR RES	NO	NO	NO
Ethylene copolymer rubber	No Data	NO	NO	NO
CARBON BLACK	RES	NO	N/A	NO
PHTHALIC ANHYDRIDE	ALG COR IRR	NO	NO	NO
HYDROQUINONE	BLO BNM CNS EYE IMM IRR MUT SKI	NO	N/A	NO

Abbreviations

N/A Not Applicable
BLO Blood
CNS Central nervous system
EYE Eyes
IRR Irritant
RES Respiratory

ALG Allergen
BNM Bone Marrow
COR Corrosive
IMM Immune system
MUT Mutagen
SKI Skin

XII. REGULATORY COMPLIANCE

CA Proposition 65: Not available

XIII. PREPARATION INFORMATION

Prepared By: Stephen Repetto
Title: Research Chemist, Environmental Health & Safety
Company: Loctite Corp., 1001 Tr Br Cr, Rocky Hill CT 06067
(24hr.) Phone: (203) 571-5100
Revision Date: January 03, 1995
Revision: 0026

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Supplement

**INFORMATION FOR FIRST AID AND CASUALTY ON TREATMENT FOR ADHESION OF
HUMAN SKIN TO ITSELF IF CAUSED BY CYANOACRYLATE ADHESIVES**

Cyanoacrylate adhesive is a very fast setting and strong adhesive. It bonds human tissue including skin in seconds. Experience has shown that accidents due to cyanoacrylates are handled best by passive, nonsurgical first aid. Treatment of specific types of accidents are given below.

SKIN CONTACT

Remove excess adhesive. Soak in warm, soapy water. The adhesive will come loose from the skin in several hours. Cured adhesive does not present a health hazard even when bonded to the skin.

Avoid contact with clothes, fabrics, rags, or tissue. Contact with these materials may cause polymerization. The polymerization of large amounts of adhesive will generate heat causing smoke, skin burns, and strong, irritating vapors. Wear nitrile or polyethylene gloves and apron when handling large amounts of adhesive.

SKIN ADHESION

First immerse the bonded surfaces in warm, soapy water. Peel or roll the surfaces apart with the aid of a blunt edge, e.g. a spatula or a teaspoon handle; then remove adhesive from the skin with soap and water. Do not try to pull surfaces apart with a direct opposing action.

EYELID TO EYELID OR EYEBALL ADHESION

In the event that eyelids are stuck together or bonded to the eyeball, wash thoroughly with warm water and apply a gauze patch. The eye will open without further action, typically in 1-4 days. There will be no residual damage. Do not try to open the eyes by manipulation.

ADHESIVE ON THE EYEBALL

Cyanoacrylate introduced into the eyes will attach itself to the eye protein and will disassociate from it over intermittent periods, generally covering several hours. This will cause periods of weeping until clearance is achieved. During the period of contamination, double vision may be experienced together with a lachrymatory effect, and it is important to understand the cause and realize that disassociation will normally occur within a matter of hours, even with gross contamination.

MOUTH

If lips are accidentally stuck together, apply lots of warm water to the lips and encourage maximum wetting and pressure from saliva inside the mouth. Peel or roll lips apart. Do not try to pull the lips with direct opposing action.

It is almost impossible to swallow cyanoacrylate. The adhesive solidifies and adheres in the mouth. Saliva will lift the adhesive in one half to two days. In case a lump forms in the mouth, position the patient to prevent ingestion of the lump when it detaches.

BURNS

Cyanoacrylates give off heat on solidification. In rare cases a large drop will increase in temperature enough to cause a burn. Burns should be treated normally after the lump of cyanoacrylate is released from the tissue as described above.

SURGERY

It should never be necessary to use such a drastic method to separate accidentally bonded skin.