

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

-Product Name: Optimus Glue

2. COMPOSITION / INFORMATION ON INGREDIENTS.

No.	INGREDIENTS
1	Ethyl 2-cyanoacrylate
2	Ethoxyethyl 2-cyanoacrylate
3	Carbon black

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW :

Vapor is irritating to eyes, skin and mucous membranes and respiratory tract.

POTENTIAL HEALTH EFFECTS :

May cause sensitization by inhalation. Narcotic effects, headache, dizziness, vomiting.

Skin: dryness Eye:irritation

POTENTIAL ENVIROMENTAL EFFECTS :

Not available.

SIGN AND SYMPTOMS OF EXPOSURE:

Vapor is irritating to eyes and mucous membranes above TLV.

Prolonged and repeated overexposure to vapors may produce symptoms of non-allergic asthma in sensitive individuals.

EXISTING CONDITIONS AGGRAVATED BY EXPOSURE:

Unknown

TARGET ORGAN AND OTHER HEALTH EFFECTS: *Literature Referenced

Ingredients

Ethylcyanoacrylate ALG IRR RES

Carcinogen NTP IARC OSHA

No. No.

No.

N/A Not applicable IRR Irritant

ALG Allergen RES Respiratory

4. FIRST AID MEASURES

Ingestion: Ingestion is not likely. See supplemental page for emergency procedures.

Inhalation: Evacuate from further exposure. If unconsciousness occurs, seek immediate medical assistance and call a physician.

If the breath has stopped, have artificial respiration.

If breathing difficulty occurs, have oxygen inhalation.

Skin contact: Remove contaminated clothing. Wash contact areas with soap and much water.

Eye contact: Flush thoroughly with fresh water for at least 15 min. Get medical assistance immediately

5. FIRE FIGHTING MEASURES

Flash Point: Above 95°C Method: Cleveland open cup. (Recommended)

Extinguishing agents: Carbon dioxide, form ,dry chemical

Special firefighting procedures: Not available

*Hazardous products formed by fire or thermal

decomposition. Irritating organic fragments.

Unusual fire or explosion hazards: None

Explosive Limits:

(%by volume in air) Lower Not available

(%by volume in air) Upper Not available

6. ACCIDENTAL RELEASE MEASURES

Evacuate non essential personnel.

Shut off all sources of ignition: No fires, smoking or flames in area.

*Ventilate area after material pick up is completed.

For small spills:

Absorb spill with inert material (dry cloth, dry sand), then place in a chemical waste containers using non-sparking tools.

Flush residual spill (area) with plenty of water.

For large spills:

Dike for later disposal. Wash with plenty of water.

7. HANDLING AND STORAGE

Handling: Keep away from sources of ignition and heat. No smoking or flames in working area.

Take precautionary measures against static discharges.

Avoid contact with skin and eyes.

Wear proper protective equipment.

Use only in well ventilated areas.

Use exhaust ventilation to keep air concentration below exposure limit.

Keep container tightly closed when not in use.

Install emergency showers and eye wash facility in working area.

Storage: Keep away from all possible source of ignition.

Store in a cool, dry, well ventilated location.

Keep container tightly closed.

Keep away from combustible materials, heat, steam pipe or sunlight.

Keep away from oxidizing materials.

Other Precautions:

Wash hands, face and gargle after work.

Practice good personal hygiene after using this material, especially before eating, drinking, smoking or using the rest room.

Keep out of reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory protection (Specify type):

Chemical cartridge respirator with organic vapor.

Local exhausts *Special

Should be used control vapors in work area.

Mechanical (General) *Other

Should use a breathing mask.

Protective gloves: Polyethylene gloves. No rubber.

Eye protection: Safety glasses, face shield.

Skin protection: Other protective clothing or equipment impervious clothing, apron and boots. Barrier creams, etc.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Black liquid

Odor: Odorless, irritating.

Boiling point: Above 190 °C

Melting point: N/A

Specific gravity (H₂O =1): 0.9 ~ 1.1

Vapor pressure (at 25°C): 1Pa

Vapor density (Air =1): 4.9

Evaporation rate (Butyl acetate =1): N/A

Solubility in water: Insoluble (polymerized by water)

10. STABILITY AND REACTIVITY

Condition to avoid: High humidity, high temperature or direct sunlight.

Stability: Stable (cool and dry area.).

Materials to avoid: Polymerized by contact with water, alcohols, amines, alkalis.

Hazardous decomposition or byproducts: CO₂, oxides and nitrogen and unknown hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Toxicity: Skin contact may cause burns. Bond skin rapidly and strongly.

Skin and eye may be irritant.

Carcinogen etc: See Section 3

12. ECOLOGICAL INFORMATION

None known

13. DISPOSAL INFORMATION

Waste disposal method:

Don't pour drain. Follow domestic and local environmental regulations.

Precautions to be taken in handling and storing.

Avoid unnecessary exposure to air and moisture. Don't store above 25°C and in direct sunlight,

Keep container lids tightly closed.

Other Precautions:

Avoid contact with skin and eyes. Protect eyes, skin and clothing from contact with liquid product. Wear recommended equipment.

14. TRANSPORT INFORMATION

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.)

Combustible liquids. (More than 450 liters)

Identification number: None (Not more than 450 liters.)

NA1993 (More than 450 liters)

Marine pollutant: None.

IATA

Proper shipping name: Unrestricted

Class or division: Unrestricted

UN or ID number: None

15. REGULATORY INFORMATION

CA Proportion 65:

No California proposition 65 chemicals are known to be present.

16. OTHER INFORMATION

Estimated NFPA Code: *NFPA is a registered trademark of the National Fire Protection Assn.

Health Hazard: 2

Fire Hazard: 2

Reactivity Hazard: 1

Specific Hazard: Does not apply

Estimated HMIS Code: *HMIS is a registered trademark of the National Paint and Coatings Assn.

Health Hazard: 2

Flammability Hazard: 2