

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY:**

Identification of the substance: **Cyanoacrylate Adhesive – GP416 / GP424 Super Glue**

Suppliers information: John Burn & Co. (B'ham) Ltd  
74 Albert Road, Stechford, Birmingham, B33 9AJ  
Tel: 0121 508 4144  
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**2. INFORMATION ON CHEMICAL COMPOSITION AND PROPERTIES**

Chemical name	EC-no.	Cas – no.	Symbol(s)	R-Phrases	Concentration %
Ethyl—cyanoacrylate	230-391-5	085-85-0	Xi	R36/37/38	86.0 – 99.5

**3. HAZARDS IDENTIFICATION**

**Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of the reach of children**

IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN

Do not breathe fumes/vapour.  
Avoid contact with skin and eyes.  
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Wear suitable gloves.

**4. FIRST AID MEASURES**

**Inhalation:** Remove subject to fresh air. If recovery is not rapid, call for prompt medical attention.

**Eye Contact:** Cyanoacrylates bond eyelids in seconds. Irrigate thoroughly with water for at least 15 minutes. Take care not to wash chemical from one eye to another. If the eyelid is bonded closed, do not force open. Cover with wet pad soaked in warm water. Get prompt medical attention, in case solid particles of cured cyanoacrylate trapped behind the eye cause any abrasive damage. Keep eye covered with wet pad until debonding is complete, usually within 1-3 days. (Cyanoacrylates will bond to eye protein causing a lachrymatory effect that aids debonding.)

**Skin:** Do not pull bonded skin apart. Remove contaminated clothing. Wash with soap/cleanser and rinse with plenty of water. Any bonded skin should be gently peeled apart with the aid of a blunt object, preferably after soaking in warm soapy water. If irritation persists, obtain medical attention. In the case of large spills on skin, superficial burns may occur – treat accordingly.

**Ingestion:** Ensure that breathing passages are not obstructed. The product will polymerise immediately in the mouth making it impossible to swallow, but be aware of possible choking hazard. Saliva will slowly separate the solidified product from the mouth over several hours. Seek medical attention.

**5. FIRE FIGHTING MEASURES**

- Suitable Extinguishers:** Alcohol resistant foam. Dry powder, carbon dioxide. Water spray/fog.
- Unsuitable Extinguishers:** Direct water jets.
- Hazardous Decomposition:** Polymerisation is highly exothermic and may produce sufficient heat to cause thermal decomposition and/or rupture of the container. Toxic and irritant fumes are produced in fire (CO, CO<sub>2</sub>, nitrogen oxides).
- Special Procedures:** Keep container cool by spraying with water if exposed to fire.  
Do not breathe decomposition product and fumes.  
Use approved self-contained breathing apparatus.  
Wear fire retardant clothing. Wear eye protection.  
Prevent runoff from fire control from entering waterways.  
Large fires should only be dealt with by trained personnel.
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**6. ACCIDENTAL RELEASE MEASURES**

- Exposure Controls:** Refer to section 8 - personal protection. Ventilate area. Evacuate personnel.  
Use approved self-contained breathing apparatus. Use barriers to prevent unauthorised entry into contaminated areas. Do not allow spill to enter drains and watercourses.
- Personal Protection:** Wear suitable respiratory protection for large spillages and in confined spaces, e.g. EN405 FFA2 or EN140 A2.  
Wear polythene, polypropylene or viton gloves.  
Wear eye protection such as glasses to BS EN 166 Chemical Grade.  
Wear suitable protective clothing.
- Disposal Considerations:** Absorb in inert material such as sand or absorbent granules (do not use cloths) or polymerise slowly with water (~10:1, adhesive : water) and then scrape up. Dispose in accordance with local regulations.
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**7. HANDLING AND STORAGE**

- Handling:** Avoid skin and eye contact. Avoid inhalation of vapour – ensure adequate ventilation and/or use local extraction.  
Wear polythene, polypropylene or viton gloves. Latex (natural rubber), nylon or PVC gloves only provide protection for a few seconds.  
Wear safety glasses. If handling large quantities, wear suitable protective clothing.  
Ambient Relative Humidity should be >35% to minimise discomfort.
- Storage:** Store in tightly closed, labelled containers. Store in a cool, dry well entilated area out of direct sunlight. Refrigerated storage(2 – 8 °C) is recommended for optimum shelf-life.  
Keep away from high temperatures and sources of ignition. Keep away from oxidising agents and from strong acids/alkalis. Can be stored in opaque polyethylene.
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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION EQUIPMENT**

<b>Occupational Exposure Limits:</b>	OES for ethyl cyanoacrylates is 0.3 ppm = 1.5g/m <sup>3</sup> (STEL 15 min.EH40/2002)
Hand protection:	Wear polythene, polypropylene or viton gloves. Latex (natural rubber), nylon or PVC gloves only provide protection for a few seconds.
Eye Protection:	Wear suitable eye protection, such as glasses rated to BS EN 166
Skin and body protection:	If handling large quantities, wear suitable protective clothing. Remove contaminated clothing and shoes immediately. Do not wear contaminated clothing.
Respiratory protection:	Use in well ventilated areas. Use local exhaust ventilation if exposed for long periods. If excessive inhalation in a poorly ventilated area is likely then use a respirator with filter type A. Ambient Relative Humidity should be >35% to minimise discomfort.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	: Clear, almost colourless liquid
<b>Odour</b>	: Sharp, pungent
<b>pH</b>	: ~6-7
<b>Melting point/range</b>	: >-30°C
<b>Boiling point/range</b>	: >150°C (~55°C at 0.045mmHg)
<b>Flash Point (C.O.C)</b>	: >85°C (C.C.)
<b>Flammability</b>	: Non-Flammable
<b>Explosive properties</b>	: None
<b>Oxidising properties</b>	: None
<b>Vapour pressure</b>	: ~0.04mmHg at 25°C
<b>Relative density</b>	: Various – from 1.05 – 1.12 depending on grade
<b>Solubility in water</b>	: Insoluble. Polymerises rapidly with water
<b>Solubility in solvents</b>	: Miscible in some organic solvents, e.g. acetone, MEK
<b>Vapour density</b>	: Not established
<b>Partition coefficient, log Pow</b>	: Not established
<b>Viscosity</b>	: Various – from 3cPs to gel (90,000cPs)
<b>Evaporation rate (Bu Ac = 1)</b>	: Not established

**10. STABILITY AND REACTIVITY**

**Stable at normal temperatures.**

<b>Conditions to avoid:</b>	High temperatures, moisture and direct sunlight. Hazardous exothermic polymerisation can occur if exposed to moisture.
<b>Materials to avoid:</b>	Strong oxidising agents, water alkalis, amines, alcohols, free-radical initiators. Will polymerise rapidly in contact with these agents.
<b>Hazardous decomposition products:</b>	Combustion/exothermic polymerisation will generate oxides of carbon, acrid smoke and irritating fumes.

**11. TOXICOLOGICAL INFORMATION****Acute Toxicity:**

Oral Expected to be very low - LD50 (rat) likely to be >3,000mg/kg. Product is almost impossible to swallow, due to polymerisation in the mouth.

Inhalation Expected to be low - see section 8 for OES info

Skin Expected to be low due to rapid polymerisation in contact with skin - LD50 (rabbit) estimated to be >3000mg/kg

**Corrosivity/irritation:**

Eyes Causes severe irritation. Conjunctival irritation and temporary corneal injury possible. Profuse eye watering and redness

Skin Irritation and redness at site of contact. Prolonged or repeated contact may lead to itching, soreness, blistering, dermatitis, etc

Respiratory Tract Causes irritation – also of mucous membranes, nose and throat. Very high concentration can cause nose bleeds

Sensitisation Not classified as sensitising. Prolonged or repeated over-exposure to high concentrations of vapours may lead to sensitising effects in sensitive individuals.

Repeated-dose toxicity Not expected at recommended OES levels (an NOAEL of 1-2ppm is likely)

Mutagenicity: No adverse results reported

Carcinogenicity No adverse results reported

Reproductive Toxicity No adverse results reported

**12. ECOLOGICAL DATA**

Not classified as Dangerous for the Environment by the Conventional Method as detailed in Schedule 3, Parts I and III of CHIP3 Regulations.

Ecotoxicity: Considered to be very low due to polymerisation with water. Bioaccumulative potential Expected to be very low

Persistence Not considered to be inherently biodegradable

Mobility Considered to be virtually zero due to rapid polymerisation with water

**13. DISPOSAL CONSIDERATIONS**

Do not discharge into drains or watercourses.  
 Polymerise adhesive by adding slowly to water (10:1, Adhesive:Water).  
 Hardened product can be disposed of in land-fill sites by licensed contractors.  
 Add water to contaminated packaging and then dispose of  
 Dispose of product through properly licensed contractors under national and local legislation

**14. TRANSPORT INFORMATION**

<b>UN No.</b>	3334	
<b>IMDG</b>	-	<b>Packing Group:</b> -
<b>IATA/CAO</b>	Class 9	<b>Packing Group:</b> -
<b>ADR/RID</b>	-	<b>Item:</b> - <b>Flash Point:</b> -
<b>Transport Name:</b>	Aviation Regulated Liquid, n.o.s.(cyanoacrylate ester)	

**15. REGULATORY INFORMATION****Symbol(s) & Indication(s) of Danger:****IRRITANT**

**Label Phrases:** Cyanoacrylate. Danger. Bonds skin and eyes in seconds. Keep out of reach of children

**Risk & Safety Phrases**

R36/37/38	Irritating to eyes, respiratory system and skin.
S23	Do not breathe fumes/vapour
S24/S25	Avoid contact with skin and eyes
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S37	Wear suitable gloves

**Other Relevant Regulations and Publications:**

Health & Safety at Work etc. Act 1974	Control of Substances Hazardous to Health Regs 1994
COSHH Essentials	EH40/series-Occupational Exposure Limits
Environmental Protection Act 1990	Special Waste Regulations 1996
EH72/13 Cyanoacrylate Risk Assessment Document	

**16. OTHER INFORMATION**

The data presented in this sheet corresponds to the current level of our knowledge and experience and is intended to describe our product with respect to possible safety demands. We imply with this however no guarantee of properties or description of qualities. It remains the customers' responsibility to ensure safe working practices.