SAFETY DATA SHEET



according to Workplace Safety and Health Regulations Singapore

Contact GEL

Section 1. Identification

FENG FU PRIVATE LTD

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Call us at: +65 9816 1980

Relevant identified uses of the substance or mixture and uses advised against

: Contact GEL

: 125001

Adhesives

Product identifier

Product code

Supplier's details : WEICON GmbH & Co. KG

Königsberger Str. 255

48157 Münster

Germany

Phone: +49 251 93220 Fax: +49(0)251 / 9322 - 244 Internet: www.weicon.de

e-mail address of person responsible for this SDS

: msds@weicon.de

Emergency telephone

number

: EMERGENCY CONTACT – UK, UAE, South Africa (24h): Tel: ++44 1865 407333

(English)

TRANSPORT EMERGENCY CONTACT - UK, UAE, South Africa (24h): Tel: ++44

1865 407333 (English)

Section 2. Hazards identification

Classification of the substance or mixture : SKIN CORROSION/IRRITATION - Category 2

SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

irritation) - Category 3

AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements, including precautionary statements

Hazard pictograms





Signal word : Warning

Hazard statements : H315 - Causes skin irritation.

H319 - Causes serious eye irritation. H335 - May cause respiratory irritation.

H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention: P280 - Wear protective gloves. Wear eye or face protection.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P261 - Avoid breathing vapor.

P264 - Wash thoroughly after handling.

Response : P391 - Collect spillage.

P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

P362 + P364 - Take off contaminated clothing and wash it before reuse.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical advice or attention.

Storage: P405 - Store locked up.

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

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Section 2. Hazards identification

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: P501 - Dispose of waste according to applicable legislation. **Disposal**

Other hazards which do not : None known.

result in classification

Section 3. Composition/information on ingredients

Substance/mixture

| Ingredient name | % | CAS number |
|-----------------------|-----|------------|
| ethyl 2-cyanoacrylate | ≥90 | 7085-85-0 |
| 1,4-dihydroxybenzene | <1 | 123-31-9 |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Chemical formula : Not applicable.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10

minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

> If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or

waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance

for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and

shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash

clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. If material has been

> swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such

as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eve contact : Causes serious eye irritation. Inhalation : May cause respiratory irritation.

Skin contact : Causes skin irritation.

Ingestion : No known significant effects or critical hazards.

Over-exposure signs/symptoms

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Section 4. First aid measures

Eye contact : Adverse symptoms may include the following:

pain or irritation watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contact : Adverse symptoms may include the following:

> irritation redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed.

The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it

is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person

providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

: Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing

media

: None known.

Specific hazards arising

from the chemical

: In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water

contaminated with this material must be contained and prevented from being

discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:

carbon dioxide carbon monoxide nitrogen oxides

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if

there is a fire. No action shall be taken involving any personal risk or without

suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure

mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

including any incompatibilities

Conditions for safe storage, : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|-----------------------|--|
| ethyl 2-cyanoacrylate | ACGIH TLV (United States, 1/2021). Skin sensitizer. Inhalation sensitizer. TWA: 0.2 ppm 8 hours. STEL: 1 ppm 15 minutes. |
| 1,4-dihydroxybenzene | Workplace Safety and Health Act (Singapore, 2/2006). PEL (long term): 2 mg/m³ 8 hours. |

Appropriate engineering controls

: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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Section 8. Exposure controls/personal protection

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Individual protection measures

: Wash hands, forearms and face thoroughly after handling chemical products, before Hygiene measures

eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and

safety showers are close to the workstation location.

Eye/face protection Safety eyewear complying with an approved standard should be used when a risk

assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash

goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should

> be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. Recommended: 1 - 4 hours

> (breakthrough time): nitrile rubber; 4 - 8 hours (breakthrough time): Viton®/butyl

rubber

Body protection : Personal protective equipment for the body should be selected based on the task

being performed and the risks involved and should be approved by a specialist

before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be

selected based on the task being performed and the risks involved and should be

approved by a specialist before handling this product.

Respiratory protection Based on the hazard and potential for exposure, select a respirator that meets the

appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: organic vapor (Type AX) and particulate filter

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid. Color : Colorless. Odor : Characteristic. : Not available. Odor threshold

Hq : Not applicable. Melting point/freezing point : Not available.

Boiling point, initial boiling

point, and boiling range

: >150°C (>302°F)

Flash point : Closed cup: >85°C (>185°F)

: >100°C (>212°F) Fire point **Evaporation rate** : Not available. Flammability : Not available. Lower and upper explosion : Not available.

limit/flammability limit

: 0.0053 kPa (0.03975 mm Hg) [50°C (122°F)]

Vapor pressure Relative vapor density : Not available. Relative density : Not available.

Density 1.04 g/cm³ [20°C (68°F)]

Solubility(ies)

Not available.

Solubility in water : Not applicable.

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Section 9. Physical and chemical properties

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Partition coefficient: n-

octanol/water

: Not applicable.

Auto-ignition temperature

| Ingredient name | °C | °F | Method |
|-----------------------|-----|-----|---------|
| ethyl 2-cyanoacrylate | 480 | 896 | EU A.15 |
| 1,4-dihydroxybenzene | 515 | 959 | |

Decomposition temperature: Not available.

Viscosity : Dynamic: 60 mPa·s (60 cP)

Flow time (ISO 2431) : Not available.

Particle characteristics

Median particle size : Not applicable.

Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: The product is stable.

Possibility of hazardous

reactions

: Hazardous reactions or instability may occur under certain conditions of storage or

use.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition

products

: Under normal conditions of storage and use, hazardous decomposition products

should not be produced.

SADT : Not available.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|-------------------------|-----------------------|---------|-------------------------|----------|
| ethyl 2-cyanoacrylate | LC50 Inhalation Vapor | Rat | 21110 mg/m ³ | 1 hours |
| 1,4-dihydroxybenzene | LD50 Oral | Rat | 302 mg/kg | _ |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|------------------------|---------|-------|--------------|-------------|
| ethyl 2-cyanoacrylate | Skin - Mild irritant | Rabbit | - | 0.5 g | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 | - |
| | | | | uL | |
| 1,4-dihydroxybenzene | Skin - Mild irritant | Human | - | 2 % | - |
| | Skin - Severe irritant | Human | - | 5 % | - |

Conclusion/Summary

Skin : Irritating to skin.

Eyes : Irritating to eyes.

Respiratory: May cause respiratory irritation.

Sensitization

Not available.

Mutagenicity

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Section 11. Toxicological information

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|-----------------------|------------|-------------------|------------------------------|
| ethyl 2-cyanoacrylate | Category 3 | - | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely

routes of exposure

: Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation. Inhalation : May cause respiratory irritation.

Skin contact : Causes skin irritation.

: No known significant effects or critical hazards. Ingestion

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:

> pain or irritation watering redness

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

Skin contact : Adverse symptoms may include the following:

irritation redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate

: Not available.

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

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Section 11. Toxicological information

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General : No known significant effects or critical hazards.
 Carcinogenicity : No known significant effects or critical hazards.
 Mutagenicity : No known significant effects or critical hazards.
 Teratogenicity : No known significant effects or critical hazards.
 Developmental effects : No known significant effects or critical hazards.
 Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

| Product/ingredient name | Oral (mg/ kg) | Dermal (mg/kg) | (gases) | (vapors) | Inhalation (dusts and mists) (mg/l) |
|-------------------------|------------------|-------------------|---------|----------|--|
| 1,4-dihydroxybenzene | 302 | N/A | N/A | N/A | N/A |

Acute toxicity estimates

| | ATE value |
|----------------|-----------|
| Not available. | |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|---------------------------------|-------------------------------------|----------|
| 1,4-dihydroxybenzene | Acute EC50 130 μg/l Fresh water | Daphnia - Daphnia magna - Larvae | 48 hours |
| | Acute LC50 44 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |

Persistence/degradability

Not available.

Bioaccumulative potential

| Product/ingredient name | LogPow | BCF | Potential |
|-------------------------|--------|-------|-----------|
| 1,4-dihydroxybenzene | 0.59 | 3.162 | low |

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its

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Section 13. Disposal considerations

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container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

| | UN | IMDG | IATA | ADR/RID |
|----------------------------|----------------|----------------|----------------|----------------|
| UN number | Not available. | Not available. | Not available. | Not available. |
| UN proper shipping name | Not available. | Not available. | Not available. | Not available. |
| Transport hazard class(es) | Not available. | Not available. | Not available. | Not available. |
| Packing group | - | - | - | - |
| Environmental hazards | No. | No. | No. | No. |

Additional information

Special precautions for user : Transport within user's premises: always transport in closed containers that are

upright and secure. Ensure that persons transporting the product know what to do in

the event of an accident or spillage.

Transport in bulk according : Not available.

to IMO instruments

Section 15. Regulatory information

Singapore - hazardous chemicals under government control

| Ingredient name | Status |
|---|--------|
| Cyanides Excluding Ferrocyanides, Ferricyanides, Acetonitrile, Acrylonitrile, Butyronitrile, 2-Dimethylaminoacetonitrile, Isobutyronitrile, Methacrylonitrile, Propionitrile. | Listed |

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : All components are listed or exempted.

Canada : Not determined.

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Section 15. Regulatory information

: All components are listed or exempted.

Eurasian Economic Union: Russian Federation inventory: All components are listed or exempted.

Japan : Japan inventory (CSCL): All components are listed or exempted.

Japan inventory (ISHL): Not determined.

New Zealand : All components are listed or exempted. **Philippines** : All components are listed or exempted. Republic of Korea : All components are listed or exempted. **Taiwan** : All components are listed or exempted. Thailand : All components are listed or exempted. Turkey : All components are listed or exempted. **United States** : All components are active or exempted. **Viet Nam** : All components are listed or exempted.

Section 16. Other information

<u>History</u>

Date of printing : 5/14/2023 Date of issue/Date of : 5/4/2023

revision

Date of previous issue : 2/12/2023 Version : 2.02

Key to abbreviations : ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships,

1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available SGG = Segregation Group UN = United Nations

Procedure used to derive the classification

| Classification | Justification |
|---|--------------------|
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract | Calculation method |
| irritation) - Category 3 | |
| AQUATIC HAZARD (LONG-TERM) - Category 2 | Calculation method |

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.