

Pacer Technology Zap-A-Gap

Pacer Technology

Chemwatch Hazard Alert Code: 2

Chemwatch: 6010-94

Version No: 4.1

Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements

Issue Date: 01/11/2019

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S.GHS.AUS.EN

SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier

| | |
|-------------------------------|--|
| Product name | Pacer Technology Zap-A-Gap |
| Chemical Name | Not Applicable |
| Synonyms | fast-setting glue adhesive Zapagap; 3/97 |
| Chemical formula | Not Applicable |
| Other means of identification | Not Available |

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

| | |
|--------------------------|---|
| Relevant identified uses | Extremely strong, fast-setting, general purpose adhesive. |
|--------------------------|---|

Details of the supplier of the safety data sheet

| | |
|-------------------------|---|
| Registered company name | Pacer Technology |
| Address | 9420 Santa Anita Avenue Rancho Cucamonga CA 91730 United States |
| Telephone | +1 909 987 0550 |
| Fax | Not Available |
| Website | http://supergluecorp.com/ |
| Email | info@supergluecorp.com |

Emergency telephone number

| | |
|-----------------------------------|------------------------------|
| Association / Organisation | CHEMWATCH EMERGENCY RESPONSE |
| Emergency telephone numbers | +61 1800 951 288 |
| Other emergency telephone numbers | +61 2 9186 1132 |

Once connected and if the message is not in your preferred language then please dial 01

SECTION 2 Hazards identification

Classification of the substance or mixture

COMBUSTIBLE LIQUID, regulated for storage purposes only

| | |
|--------------------|---|
| Poisons Schedule | Not Applicable |
| Classification [1] | Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2A, Sensitisation (Skin) Category 1, Germ Cell Mutagenicity Category 2, Carcinogenicity Category 2, Specific Target Organ Toxicity - Single Exposure (Respiratory Tract Irritation) Category 3, Hazardous to the Aquatic Environment Acute Hazard Category 2, Hazardous to the Aquatic Environment Long-Term Hazard Category 2, Flammable Liquids Category 4 |
| Legend: | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI |

Label elements

| | |
|---------------------|---|
| Hazard pictogram(s) |  |
| Signal word | Warning |

Hazard statement(s)

| | |
|------|--|
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H317 | May cause an allergic skin reaction. |
| H341 | Suspected of causing genetic defects. |
| H351 | Suspected of causing cancer. |
| H335 | May cause respiratory irritation. |
| H411 | Toxic to aquatic life with long lasting effects. |

| | |
|------|---------------------|
| H227 | Combustible liquid. |
|------|---------------------|

Precautionary statement(s) Prevention

| | |
|------|--|
| P201 | Obtain special instructions before use. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves, protective clothing, eye protection and face protection. |

Precautionary statement(s) Response

| | |
|----------------|--|
| P308+P313 | IF exposed or concerned: Get medical advice/ attention. |
| P370+P378 | In case of fire: Use alcohol resistant foam or normal protein foam to extinguish. |
| P302+P352 | IF ON SKIN: Wash with plenty of water. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

Precautionary statement(s) Storage

| | |
|-----------|--|
| P405 | Store locked up. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |

Precautionary statement(s) Disposal

| | |
|------|--|
| P501 | Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. |
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SECTION 3 Composition / information on ingredients**Substances**

See section below for composition of Mixtures

Mixtures

| CAS No | %[weight] | Name |
|----------------|--|--|
| 7085-85-0 | >60 | <u>ethyl cyanoacrylate</u> |
| 9011-14-7 | 10-30 | <u>methyl methacrylate homopolymer</u> |
| 123-31-9 | 0-1 | <u>hydroquinone</u> |
| Legend: | 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; * EU IOELVs available | |

SECTION 4 First aid measures**Description of first aid measures**

| | |
|---------------------|--|
| Eye Contact | <p>Eyelid Adhesion</p> <ul style="list-style-type: none"> Wash thoroughly with water and apply moist pad; maintain in position. DO NOT force separation. Transport to hospital, or doctor without delay. Minor eye contamination should be treated by copious washing with water or 1% sodium carbonate solution. The eye will generally open without further action, typically in one to two days. there should be no residual damage. Adhesive introduced Removal of contact lenses after eye injury should only be undertaken by skilled personnel. <p>Adhesive in the Eye:</p> <ul style="list-style-type: none"> Adhesive will attach itself to eye proteins and will disassociate from these over intermittent periods, usually within several hours. This will result in weeping until clearance of the protein complex. It is important to understand that disassociation will normally occur within a matter of hours even with gross contamination. |
| Skin Contact | <p>Cyanoacrylate adhesives is a very fast setting and strong. they bond human tissues including skin in seconds. Experience shows that accidents involving cyanoacrylates are best handled by passive, non-surgical first aid.</p> <p>Skin Contact:</p> <ul style="list-style-type: none"> Remove excessive adhesive. Soak in warm water - the adhesive should loosen from the skin in several hours. Dried adhesive does not present a health hazard. Contact with clothes, fabric, rags or tissues may generate heat, and strong irritating odours; skin burns may also ensue. <p>Skin Adhesion:</p> <ul style="list-style-type: none"> IMMEDIATELY immerse affected areas in warm soapy water. DO NOT force bonded surfaces apart. Use a gentle rolling action to peel surfaces apart if possible. It may be necessary to use a blunt edge such as a spatula or spoon handle. Do NOT attempt to pull the surfaces apart with a direct opposing action. Remove any cured material with warm, soapy water. Seek medical attention without delay. A solvent such as acetone may be used (with care!) to separate bonded skin surfaces. NEVER use solvent near eyes, mouth, cuts, or abrasions. |
| Inhalation | <ul style="list-style-type: none"> If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor. |

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|------------------|--|
| Ingestion | <ul style="list-style-type: none"> ▶ For advice, contact a Poisons Information Centre or a doctor at once. ▶ Urgent hospital treatment is likely to be needed. ▶ If swallowed do NOT induce vomiting. ▶ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ▶ Observe the patient carefully. ▶ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ▶ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ▶ Transport to hospital or doctor without delay. ▶ For material bonded in the mouth seek medical/dental attention. ▶ If lips are accidentally stuck together apply lots of warm water and encourage maximum wetting and pressure from saliva inside the mouth. ▶ Peel or roll lips apart. ▶ Do NOT attempt to pull the lips with direct opposing action. ▶ It is almost impossible to swallow cyanoacrylates. The adhesive solidifies and adheres in the mouth. Saliva will lip the adhesion in one or two days. |
|------------------|--|

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

It should never be necessary to use surgical means to separate tissues which become accidentally bonded. The action of physiological fluids or warm soapy water will cause this adhesive to eventually fail.

SECTION 5 Firefighting measures

Extinguishing media

- ▶ Foam.
 - ▶ Dry chemical powder.
- Carbon dioxide.

Special hazards arising from the substrate or mixture

| | |
|-----------------------------|--|
| Fire Incompatibility | ▶ Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result |
|-----------------------------|--|

Advice for firefighters

| | |
|------------------------------|---|
| Fire Fighting | <ul style="list-style-type: none"> ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ Wear breathing apparatus plus protective gloves. ▶ Prevent, by any means available, spillage from entering drains or water course. ▶ Use water delivered as a fine spray to control fire and cool adjacent area. |
| Fire/Explosion Hazard | <p>Combustible liquid</p> <p>Moderate fire hazard when exposed to heat or flame.</p> <p>On combustion, emits toxic fumes of:</p> <p>hydrogen cyanide nitrogen oxides (NOx) carbon monoxide (CO) and carbon dioxide (CO2)</p> |
| HAZCHEM | Not Applicable |

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

| | |
|---------------------|--|
| Minor Spills | <p>Clean up all spills immediately.</p> <p>Avoid breathing vapours and contact with skin and eyes.</p> <p>Wear impervious gloves and safety glasses.</p> <p>Add water to cure (harden) the substance.</p> <p>Scrape up the cured (hardened) substance.</p> <p>Place in suitable containers for disposal.</p> <p>If cloth has been used to wipe up spills, immediately soak the cloth in water to produce polymerisation and prevent possibility of autoignition.</p> |
| Major Spills | <p>Clear area of personnel.</p> <p>Alert Fire Brigade and tell them location and nature of hazard.</p> <p>Control personal contact with the substance, by using protective equipment</p> <p>Prevent, by any means available, spillage from entering drains or water courses.</p> <p>Increase ventilation.</p> <p>Absorb or cover spill with sand, earth, inert material or vermiculite</p> <p>Add water to cure (harden) the substance.</p> <p>Acetone may be used to soften the cured (hardened) substance before removal.</p> <p>Scrape up the cured (hardened) substance.</p> <p>Collect residues and seal in labelled drums for disposal</p> <p>Use a solvent to clean the area.</p> <p>If contamination of drains or waterways occurs, advise emergency services.</p> |

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 Handling and storage

Precautions for safe handling

| | |
|--------------------------|---|
| Safe handling | <p>Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS.</p> <p>Avoid all personal contact, including inhalation</p> <p>Avoid generating and breathing vapour</p> <p>Wear protective clothing when risk of exposure occurs.</p> <p>Use in a well-ventilated area</p> <p>Avoid contact with incompatible materials.</p> <p>Avoid contact with moisture.</p> <p>DO NOT dilute or mix with water or other products.</p> <ul style="list-style-type: none"> ▶ Handle and open container with care <p>When handling, DO NOT eat, drink or smoke.</p> <p>Keep containers securely sealed when not in use</p> <p>Avoid physical damage to containers.</p> <p>Wash hands with soap and water after handling.</p> |
| Other information | <p>Keep cool. Store below 25 deg.C</p> <ul style="list-style-type: none"> ▶ Keep dry. ▶ Store in original containers. ▶ Keep containers securely sealed. ▶ No smoking, naked lights or ignition sources. |

Conditions for safe storage, including any incompatibilities

| | |
|--------------------------------|--|
| Suitable container | <ul style="list-style-type: none"> ▶ Check that containers are clearly labelled ▶ Packaging as recommended by manufacturer. |
| Storage incompatibility | <ul style="list-style-type: none"> ▶ Avoid reaction with oxidising agents <p>Avoid contact with</p> <p>water</p> <p>,</p> <p>alcohols</p> <p>,</p> <p>selected amines</p> <p>,</p> <p>alkalies</p> <p>,</p> <p>peroxides and metal oxides</p> |

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

| Source | Ingredient | Material name | TWA | STEL | Peak | Notes |
|------------------------------|--------------|---------------|---------|---------------|---------------|---------------|
| Australia Exposure Standards | hydroquinone | Hydroquinone | 2 mg/m3 | Not Available | Not Available | Not Available |

Emergency Limits

| Ingredient | TEEL-1 | TEEL-2 | TEEL-3 |
|--------------|---------|----------|-----------|
| hydroquinone | 3 mg/m3 | 20 mg/m3 | 120 mg/m3 |

| Ingredient | Original IDLH | Revised IDLH |
|---------------------------------|---------------|---------------|
| ethyl cyanoacrylate | Not Available | Not Available |
| methyl methacrylate homopolymer | Not Available | Not Available |
| hydroquinone | 50 mg/m3 | Not Available |

Occupational Exposure Banding

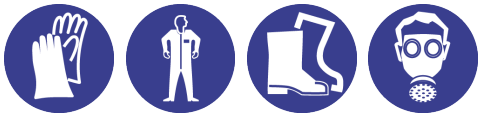
| Ingredient | Occupational Exposure Band Rating | Occupational Exposure Band Limit |
|---------------------------------|-----------------------------------|----------------------------------|
| ethyl cyanoacrylate | E | ≤ 0.1 ppm |
| methyl methacrylate homopolymer | E | ≤ 0.01 mg/m ³ |

Notes:

Occupational exposure banding is a process of assigning chemicals into specific categories or bands based on a chemical's potency and the adverse health outcomes associated with exposure. The output of this process is an occupational exposure band (OEB), which corresponds to a range of exposure concentrations that are expected to protect worker health.

Exposure controls

| | |
|---|---|
| Appropriate engineering controls | <p>In confined space:</p> <p>Full face respirator with supplied air.</p> <p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.</p> |
|---|---|

| | |
|--------------------------------|--|
| Personal protection |  |
| Eye and face protection | <ul style="list-style-type: none"> ▶ Chemical goggles DO NOT wear contact lenses. ▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. |
| Skin protection | See Hand protection below |
| Hands/feet protection | <ul style="list-style-type: none"> ▶ Polyethylene gloves ▶ PVC gloves ▶ Safety footwear |
| Body protection | See Other protection below |
| Other protection | Overalls <ul style="list-style-type: none"> ▶ Impervious apron ▶ Barrier cream ▶ Eyewash unit. Ensure there is ready access to a safety shower |

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the: "Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

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| Material | CPI |
|------------------|-----|
| NATURAL RUBBER | A |
| NATURAL+NEOPRENE | A |
| NEOPRENE | A |
| NEOPRENE/NATURAL | A |
| NITRILE | A |
| PVC | A |

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|------------------------------------|----------------------|----------------------|-------------------------|
| up to 10 x ES | A-AUS P2 | - | A-PAPR-AUS / Class 1 P2 |
| up to 50 x ES | - | A-AUS / Class 1 P2 | - |
| up to 100 x ES | - | A-2 P2 | A-PAPR-2 P2 ^ |

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

| | | | |
|---|--|--|----------------|
| Appearance | Clear, colourless to straw liquid with a stimulative odour. Moisture initiates polymerisation. Solidifies instantly in contact with water. | | |
| Physical state | Liquid | Relative density (Water = 1) | 1.06 |
| Odour | Not Available | Partition coefficient n-octanol / water | Not Available |
| Odour threshold | Not Available | Auto-ignition temperature (°C) | Not Available |
| pH (as supplied) | Not Applicable | Decomposition temperature | Not Available |
| Melting point / freezing point (°C) | Not Available | Viscosity (cSt) | Not Available |
| Initial boiling point and boiling range (°C) | 65 | Molecular weight (g/mol) | Not Applicable |
| Flash point (°C) | 80 | Taste | Not Available |
| Evaporation rate | Not Available | Explosive properties | Not Available |
| Flammability | Combustible. | Oxidising properties | Not Available |
| Upper Explosive Limit (%) | Not Available | Surface Tension (dyn/cm or mN/m) | Not Available |
| Lower Explosive Limit (%) | Not Available | Volatile Component (%vol) | Not Available |
| Vapour pressure (kPa) | Negligible | Gas group | Not Available |
| Solubility in water | Reacts | pH as a solution (Not Available%) | Not Applicable |

Vapour density (Air = 1) Not Available

VOC g/L Not Available

SECTION 10 Stability and reactivity

| | |
|---|---|
| Reactivity | See section 7 |
| Chemical stability | Presence of water <ul style="list-style-type: none"> Unstable in the presence of incompatible materials Storage in unsealed containers Product is considered stable under normal handling conditions Hazardous polymerisation will not occur. |
| Possibility of hazardous reactions | See section 7 |
| Conditions to avoid | See section 7 |
| Incompatible materials | See section 7 |
| Hazardous decomposition products | See section 5 |

SECTION 11 Toxicological information**Information on toxicological effects**

| | |
|---------------------|--|
| Inhaled | The vapour is discomforting to the upper respiratory tract Respiratory sensitisation may result in allergic/asthma like responses; from coughing and minor breathing difficulties to bronchitis with wheezing, gasping. In low humidity, cyanoacrylate vapours are irritating to the respiratory system and eyes. High concentrations may cause inflammation of the lungs and other complications. |
| Ingestion | Uncured cyanoacrylates are difficult to swallow as saliva cures the surface of the adhesive with negligible bonding. The cured material is considered to be non-hazardous. Considered an unlikely route of entry in commercial/industrial environments |
| Skin Contact | The material is highly discomforting to the skin and may cause chemical burns Sensitisation may result in allergic dermatitis responses including rash, itching, hives or swelling of extremities. Small n-alkyl cyanoacrylates cause burns and irritation on skin contact. Exposure to their vapours can cause irritation, but usually only in dry conditions. |
| Eye | The vapour/liquid is highly discomforting to the eyes Exposure to cyanoacrylate vapours can cause discomfort and tears, nasal discharge, and blurred vision. The eyelids may be glued shut. |
| Chronic | Principal routes of exposure are by accidental skin and eye contact and by inhalation of vapours especially at higher temperatures. Dermatitis may result from prolonged exposures. On repeated and prolonged exposure by skin contact or inhalation, a small proportion of individuals develop allergic sensitivities. |

| | TOXICITY | IRRITATION |
|--|---|---------------------------|
| Pacer Technology Zap-A-Gap | Not Available | Not Available |
| ethyl cyanoacrylate | TOXICITY | IRRITATION |
| | Dermal (rabbit) LD50: 233.2 mg/kg ^[2] | Not Available |
| | Inhalation(Rat) LC50; 5.278 mg/L4h ^[2] | |
| | Oral (Rat) LD50; 190.8 mg/kg ^[2] | |
| methyl methacrylate homopolymer | TOXICITY | IRRITATION |
| | Not Available | Not Available |
| hydroquinone | TOXICITY | IRRITATION |
| | Dermal (rabbit) LD50: >2000 mg/kg ^[1] | Skin (human): 2% - mild |
| | Oral (Rat) LD50; 320 mg/kg ^[2] | Skin (human): 5% - SEVERE |
| Legend: | 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. * Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances | |

| | |
|--|--|
| ETHYL CYANOACRYLATE | For methyl cyanoacrylate (MCA) and ethyl cyanoacrylate (ECA) Studies show that the key toxicological features of MCA and ECA are as a result of local activity at the site of contact. Liquid MCA and ECA may cause eye and skin irritation on repeated exposure but inconclusive evidence of skin sensitization and asthma causing effect. ECA and MCA does not cause genetic toxicity but presents similar health effect predicted to be due to its similar dose-response relationship, close structural similarities, similar physicochemical properties and toxicological profiles. * [AIHAAP] |
| METHYL METHACRYLATE HOMOPOLYMER | Polymethyl methacrylate (PMMA) and related cosmetic ingredients methyl methacrylate copolymer and methyl methacrylate/glycol dimethacrylate copolymer are polymers that function as film formers and viscosity-increasing agents in cosmetics. The Food and Drug Administration (FDA) determination of safety of PMMA use in several medical devices, which included human and animal safety data, was used as the basis of safety of PMMA and related polymers in cosmetics by the Cosmetic Ingredient Review (CIR) Expert Panel. The PMMA used in |

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|--|---|
| | cosmetics is substantially the same as in medical devices. The Panel concluded that these ingredients are safe as cosmetic ingredients in the practices of use and concentrations as described in this safety assessment J Toxicol. No significant acute toxicological data identified in literature search. |
| HYDROQUINONE | The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration. Animal testing shows that hydroquinone is rapidly and extensively absorbed from the gut and lung. Absorption via the skin is slow, but may be accelerated with alcohols. Hydroquinone distributes rapidly and widely among tissues. It is rapidly excreted from the body, mostly via the urine. In animals, hydroquinone has moderate oral acute toxicity. |
| ETHYL CYANOACRYLATE & METHYL METHACRYLATE HOMOPOLYMER | Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. |
| METHYL METHACRYLATE HOMOPOLYMER & HYDROQUINONE | The substance is classified by IARC as Group 3: NOT classifiable as to its carcinogenicity to humans. Evidence of carcinogenicity may be inadequate or limited in animal testing. |

| | | | |
|--|---|---------------------------------|---|
| Acute Toxicity | ✗ | Carcinogenicity | ✓ |
| Skin Irritation/Corrosion | ✓ | Reproductivity | ✗ |
| Serious Eye Damage/Irritation | ✓ | STOT - Single Exposure | ✓ |
| Respiratory or Skin sensitisation | ✓ | STOT - Repeated Exposure | ✗ |
| Mutagenicity | ✓ | Aspiration Hazard | ✗ |

Legend: ✗ – Data either not available or does not fill the criteria for classification
✓ – Data available to make classification

SECTION 12 Ecological information

Toxicity

| | Endpoint | Test Duration (hr) | Species | Value | Source |
|--|--|---------------------------|-------------------------------|---------------|---------------|
| Pacer Technology Zap-A-Gap | Not Available | Not Available | Not Available | Not Available | Not Available |
| ethyl cyanoacrylate | Not Available | Not Available | Not Available | Not Available | Not Available |
| methyl methacrylate homopolymer | Not Available | Not Available | Not Available | Not Available | Not Available |
| hydroquinone | Endpoint | Test Duration (hr) | Species | Value | Source |
| | NOEC(ECx) | 72h | Algae or other aquatic plants | 0.002mg/l | 2 |
| | ErC50 | 72h | Algae or other aquatic plants | 0.335mg/l | 1 |
| | LC50 | 96h | Fish | 0.044mg/l | 2 |
| | EC50 | 72h | Algae or other aquatic plants | <0.033mg/l | 2 |
| | EC50 | 48h | Crustacea | 0.061mg/l | 2 |
| Legend: | Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data | | | | |

Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|---------------------------------|---------------------------|----------------------------|
| ethyl cyanoacrylate | LOW | LOW |
| methyl methacrylate homopolymer | LOW (Half-life = 56 days) | LOW (Half-life = 0.4 days) |
| hydroquinone | LOW | LOW |

Bioaccumulative potential

| Ingredient | Bioaccumulation |
|---------------------------------|-----------------------|
| ethyl cyanoacrylate | LOW (LogKOW = 1.4174) |
| methyl methacrylate homopolymer | LOW (LogKOW = 1.2751) |
| hydroquinone | LOW (BCF = 65) |


Mobility in soil

| Ingredient | Mobility |
|---------------------------------|-------------------|
| ethyl cyanoacrylate | LOW (KOC = 6.847) |
| methyl methacrylate homopolymer | LOW (KOC = 10.14) |
| hydroquinone | LOW (KOC = 434) |

SECTION 13 Disposal considerations**Waste treatment methods**

| | |
|-------------------------------------|---|
| Product / Packaging disposal | <ul style="list-style-type: none"> ▶ Recycle wherever possible or consult manufacturer for recycling options. ▶ Consult State Land Waste Authority for disposal. ▶ Bury or incinerate residue at an approved site. ▶ Recycle containers if possible, or dispose of in an authorised landfill. |
|-------------------------------------|---|

SECTION 14 Transport information**Labels Required**

| | |
|---------------------------|---|
| COMBUSTIBLE LIQUID | COMBUSTIBLE LIQUID, regulated for storage purposes only |
| Marine Pollutant |  |
| HAZCHEM | Not Applicable |

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS****Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS****Transport in bulk according to Annex II of MARPOL and the IBC code**

Not Applicable

Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

| Product name | Group |
|---------------------------------|---------------|
| ethyl cyanoacrylate | Not Available |
| methyl methacrylate homopolymer | Not Available |
| hydroquinone | Not Available |

Transport in bulk in accordance with the ICG Code

| Product name | Ship Type |
|---------------------------------|---------------|
| ethyl cyanoacrylate | Not Available |
| methyl methacrylate homopolymer | Not Available |
| hydroquinone | Not Available |

SECTION 15 Regulatory information**Safety, health and environmental regulations / legislation specific for the substance or mixture****ethyl cyanoacrylate is found on the following regulatory lists**

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

Australian Inventory of Industrial Chemicals (AIIC)

methyl methacrylate homopolymer is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

hydroquinone is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals
 Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 2

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4

Australian Inventory of Industrial Chemicals (AIIC)
 Chemical Footprint Project - Chemicals of High Concern List

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

National Inventory Status

| National Inventory | Status |
|---|---|
| Australia - AIIC / Australia Non-Industrial Use | Yes |
| Canada - DSL | Yes |
| Canada - NDSL | No (ethyl cyanoacrylate; methyl methacrylate homopolymer; hydroquinone) |
| China - IECSC | Yes |
| Europe - EINEC / ELINCS / NLP | No (methyl methacrylate homopolymer) |
| Japan - ENCS | No (methyl methacrylate homopolymer) |
| Korea - KECI | Yes |
| New Zealand - NZIoC | Yes |
| Philippines - PICCS | Yes |
| USA - TSCA | Yes |
| Taiwan - TCSI | Yes |
| Mexico - INSQ | Yes |
| Vietnam - NCI | Yes |
| Russia - FBEPH | Yes |
| Legend: | Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration. |

SECTION 16 Other information

| | |
|----------------------|------------|
| Revision Date | 01/11/2019 |
| Initial Date | 01/11/2009 |

SDS Version Summary

| Version | Date of Update | Sections Updated |
|---------|----------------|--|
| 3.1 | 27/06/2017 | Classification |
| 4.1 | 01/11/2019 | One-off system update. NOTE: This may or may not change the GHS classification |

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average
 PC—STEL: Permissible Concentration-Short Term Exposure Limit
 IARC: International Agency for Research on Cancer
 ACGIH: American Conference of Governmental Industrial Hygienists
 STEL: Short Term Exposure Limit
 TEEL: Temporary Emergency Exposure Limit.
 IDLH: Immediately Dangerous to Life or Health Concentrations
 ES: Exposure Standard
 OSF: Odour Safety Factor
 NOAEL :No Observed Adverse Effect Level
 LOAEL: Lowest Observed Adverse Effect Level
 TLV: Threshold Limit Value
 LOD: Limit Of Detection
 OTV: Odour Threshold Value
 BCF: BioConcentration Factors
 BEI: Biological Exposure Index
 AIIC: Australian Inventory of Industrial Chemicals
 DSL: Domestic Substances List
 NDSL: Non-Domestic Substances List
 IECSC: Inventory of Existing Chemical Substance in China
 EINECS: European INventory of Existing Commercial chemical Substances
 ELINCS: European List of Notified Chemical Substances
 NLP: No-Longer Polymers
 ENCS: Existing and New Chemical Substances Inventory
 KECI: Korea Existing Chemicals Inventory
 NZIoC: New Zealand Inventory of Chemicals
 PICCS: Philippine Inventory of Chemicals and Chemical Substances
 TSCA: Toxic Substances Control Act
 TCSI: Taiwan Chemical Substance Inventory
 INSQ: Inventario Nacional de Sustancias Químicas
 NCI: National Chemical Inventory
 FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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