

SAFETY DATA SHEETS

This SDS packet was issued with item:

076320725

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

076320717



Stae SDI Limited

Version No: 6.1.1.1

Safety Data Sheet according to WHMIS 2015 requirements

Issue Date: 01/11/2019

Print Date: 02/10/2020

L.GHS.CAN.EN

SECTION 1 Identification

Product Identifier

| | |
|-------------------------------|---|
| Product name | Stae |
| Synonyms | Not Available |
| Proper shipping name | FLAMMABLE LIQUID, N.O.S. (contains acetone) |
| Other means of identification | Not Available |

Recommended use of the chemical and restrictions on use

| | |
|--------------------------|---|
| Relevant identified uses | For bonding of composite to tooth surfaces by dental professionals. |
|--------------------------|---|

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

| Registered company name | SDI Limited | SDI (North America) Inc. | SDi |
|-------------------------|--|---|---|
| Address | 3-15 Brunsdon Street Bayswater VIC 3153 Australia | 1279 Hamilton Parkway Itasca IL 60143 United States | Rua Dr. Virgílio de Carvalho Pinto, 612 Pinheiros, Sao Paulo 05415-020 Brazil |
| Telephone | +61 3 8727 7111 (Business Hours) | +1 630 361 9200 (Business hours) 1 800 228 5166 | +55 11 3092 7100 (Business Hours) |
| Fax | +61 3 8727 7222 | +1 630 361 9222 | +55 11 3092 7101 |
| Website | www.sdi.com.au | http://www.sdi.com.au | http://www.sdi.com.au/ |
| Email | info@sdi.com.au | USA.Canada@sdi.com.au | Brasil@sdi.com.au |

| | |
|-------------------------|---|
| Registered company name | SDI Dental Limited |
| Address | Block 8, St Johns Court Santry Dublin 9 Ireland |
| Telephone | +353 1 886 9577 (Business Hours) 800 0225 5734 |
| Fax | Not Available |
| Website | http://www.sdi.com.au/ |
| Email | Ireland@sdi.com.au |

Emergency phone number

| Association / Organisation | SDI Limited | SDi | SDI Dental Limited |
|-----------------------------------|-----------------------|-----------------|--------------------|
| Emergency telephone numbers | +61 3 8727 7111 | +61 3 8727 7111 | +61 3 8727 7111 |
| Other emergency telephone numbers | ray.cahill@sdi.com.au | Not Available | Not Available |

SECTION 2 Hazard(s) identification

Classification of the substance or mixture

NFPA 704 diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

| | |
|----------------|---|
| Classification | Flammable Liquid Category 2, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Skin Sensitizer Category 1, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation), Specific target organ toxicity - single exposure Category 3 (narcotic effects) |
|----------------|---|

Label elements

| | |
|---------------------|--|
| Hazard pictogram(s) | |
|---------------------|--|

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Signal word **Danger**

Hazard statement(s)

| | |
|------|--------------------------------------|
| H225 | Highly flammable liquid and vapour. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H317 | May cause an allergic skin reaction. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |

Physical and Health hazard(s) not otherwise classified

Not Applicable

Precautionary statement(s) Prevention

| | |
|------|--|
| 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/face protection. |
| P240 | Ground and bond container and receiving equipment. |
| P241 | Use explosion-proof electrical/ventilating/lighting/intrinsically safe equipment. |
| P242 | Use non-sparking tools. |
| P243 | Take action to prevent static discharges. |
| P261 | Avoid breathing mist/vapours/spray. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |

Precautionary statement(s) Response

| | |
|----------------|--|
| P321 | Specific treatment (see advice on this label). |
| 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. |
| P312 | Call a POISON CENTER/doctor/physician/first aider/if you feel unwell. |
| P333+P313 | If skin irritation or rash occurs: Get medical advice/attention. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| P362+P364 | Take off contaminated clothing and wash it before reuse. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |

Precautionary statement(s) Storage

| | |
|-----------|--|
| P403+P235 | Store in a well-ventilated place. Keep cool. |
| P405 | Store locked up. |

Precautionary statement(s) Disposal

| | |
|------|--|
| P501 | Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation. |
|------|--|

SECTION 3 Composition / information on ingredients

Substances

See section below for composition of Mixtures

Mixtures

| CAS No | %[weight] | Name |
|---------------|-----------|-----------------|
| 67-64-1 | 50-55 | acetone |
| Not Available | 20-40 | acrylic monomer |

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4 First-aid measures

Description of first aid measures

| | |
|-------------|---|
| Eye Contact | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> ▶ Immediately hold eyelids apart and flush the eye continuously with running water. ▶ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ▶ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. ▶ Transport to hospital or doctor without delay. |
|-------------|---|

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| | <ul style="list-style-type: none"> ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. |
| Skin Contact | <p>If skin contact occurs:</p> <ul style="list-style-type: none"> ▶ Immediately remove all contaminated clothing, including footwear. ▶ Flush skin and hair with running water (and soap if available). ▶ Seek medical attention in event of irritation. |
| 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, without delay. |
| Ingestion | Seek medical attention. |

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Fire-fighting measures**Extinguishing media**

- ▶ Alcohol stable foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.
- ▶ Water spray or fog - Large fires only.

Special hazards arising from the substrate or mixture

| | |
|-----------------------------|-------------|
| Fire Incompatibility | None known. |
|-----------------------------|-------------|

Special protective equipment and precautions for fire-fighters

| | |
|------------------------------|---|
| Fire Fighting | <ul style="list-style-type: none"> ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ May be violently or explosively reactive. ▶ Wear breathing apparatus plus protective gloves in the event of a fire. ▶ Prevent, by any means available, spillage from entering drains or water course. ▶ Consider evacuation (or protect in place). ▶ Fight fire from a safe distance, with adequate cover. ▶ If safe, switch off electrical equipment until vapour fire hazard removed. ▶ Use water delivered as a fine spray to control the fire and cool adjacent area. ▶ Avoid spraying water onto liquid pools. ▶ Do not approach containers suspected to be hot. ▶ Cool fire exposed containers with water spray from a protected location. ▶ If safe to do so, remove containers from path of fire. |
| Fire/Explosion Hazard | <ul style="list-style-type: none"> ▶ Liquid and vapour are highly flammable. ▶ Severe fire hazard when exposed to heat, flame and/or oxidisers. ▶ Vapour may travel a considerable distance to source of ignition. ▶ Heating may cause expansion or decomposition leading to violent rupture of containers. ▶ On combustion, may emit toxic fumes of carbon monoxide (CO). <p>Combustion products include: carbon dioxide (CO₂) other pyrolysis products typical of burning organic material.</p> |

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 | <ul style="list-style-type: none"> ▶ Remove all ignition sources. ▶ Clean up all spills immediately. ▶ Avoid breathing vapours and contact with skin and eyes. ▶ Control personal contact with the substance, by using protective equipment. ▶ Contain and absorb small quantities with vermiculite or other absorbent material. ▶ Wipe up. ▶ Collect residues in a flammable waste container. |
| Major Spills | <ul style="list-style-type: none"> ▶ Clear area of personnel and move upwind. ▶ Alert Fire Brigade and tell them location and nature of hazard. ▶ May be violently or explosively reactive. ▶ Wear breathing apparatus plus protective gloves. ▶ Prevent, by any means available, spillage from entering drains or water course. ▶ Consider evacuation (or protect in place). ▶ No smoking, naked lights or ignition sources. ▶ Increase ventilation. ▶ Stop leak if safe to do so. ▶ Water spray or fog may be used to disperse /absorb vapour. ▶ Contain spill with sand, earth or vermiculite. ▶ Use only spark-free shovels and explosion proof equipment. |

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- ▶ Collect recoverable product into labelled containers for recycling.
- ▶ Absorb remaining product with sand, earth or vermiculite.
- ▶ Collect solid residues and seal in labelled drums for disposal.
- ▶ Wash area and prevent runoff into drains.
- ▶ If contamination of drains or waterways occurs, advise emergency services.

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

SECTION 7 Handling and storage

Precautions for safe handling

| | |
|--------------------------|--|
| Safe handling | <ul style="list-style-type: none"> ▶ Avoid all personal contact, including inhalation. ▶ Wear protective clothing when risk of exposure occurs. ▶ Use in a well-ventilated area. ▶ Prevent concentration in hollows and sumps. ▶ DO NOT enter confined spaces until atmosphere has been checked. ▶ Avoid smoking, naked lights, heat or ignition sources. ▶ When handling, DO NOT eat, drink or smoke. ▶ Vapour may ignite on pumping or pouring due to static electricity. ▶ DO NOT use plastic buckets. ▶ Earth and secure metal containers when dispensing or pouring product. ▶ Use spark-free tools when handling. ▶ Avoid contact with incompatible materials. ▶ Keep containers securely sealed. ▶ Avoid physical damage to containers. ▶ Always wash hands with soap and water after handling. ▶ Work clothes should be laundered separately. ▶ Use good occupational work practice. ▶ Observe manufacturer's storage and handling recommendations contained within this SDS. ▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions. |
| Other information | <p>Store in a dry and well ventilated-area, away from heat and sunlight.</p> <p>Store between 10 and 25 deg. C.</p> |

Conditions for safe storage, including any incompatibilities

| | |
|--------------------------------|--|
| Suitable container | ▶ DO NOT repack. Use containers supplied by manufacturer only. |
| Storage incompatibility | <ul style="list-style-type: none"> ▶ Avoid storage with reducing agents. ▶ Avoid strong acids, acid chlorides, acid anhydrides and chloroformates. |

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

| Source | Ingredient | Material name | TWA | STEL | Peak | Notes |
|---|------------|---------------|-------------------------|-------------------------|---------------|--|
| Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances | acetone | Acetone | 1,000 ppm / 2,400 mg/m3 | 3,000 mg/m3 / 1,250 ppm | Not Available | Not Available |
| Canada - Nova Scotia Occupational Exposure Limits | acetone | Acetone | 500 ppm | 750 ppm | Not Available | TLV Basis: Upper respiratory tract & eye irritation; CNS impairment; hematologic effects |
| Canada - Alberta Occupational Exposure Limits | acetone | Acetone | 500 ppm / 1200 mg/m3 | 1800 mg/m3 / 750 ppm | Not Available | Not Available |
| Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits | acetone | Acetone | 500 ppm | 750 ppm | Not Available | Not Available |
| Canada - Manitoba Occupational Exposure Limits | acetone | Not Available | 250 ppm | 500 ppm | Not Available | TLV® Basis: URT & eye irr; CNS impair; BEI |
| Canada - British Columbia Occupational Exposure Limits | acetone | Acetone | 250 ppm | 500 ppm | Not Available | Not Available |
| Canada - Prince Edward Island Occupational Exposure Limits | acetone | Acetone | 250 ppm | 500 ppm | Not Available | TLV® Basis: URT & eye irr; CNS impair; BEI |
| Canada - Northwest Territories Occupational Exposure Limits | acetone | Acetone | 500 ppm | 750 ppm | Not Available | Not Available |
| Canada - Quebec Permissible Exposure Values for Airborne Contaminants | acetone | Acetone | 500 ppm / 1190 mg/m3 | 2380 mg/m3 / 1000 ppm | Not Available | Not Available |

Emergency Limits


| Ingredient | Material name | TEEL-1 | TEEL-2 | TEEL-3 |
|------------|---------------|---------------|---------------|---------------|
| acetone | Acetone | Not Available | Not Available | Not Available |

| Ingredient | Original IDLH | Revised IDLH |
|------------|---------------|---------------|
| acetone | 2,500 ppm | Not Available |

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MATERIAL DATA

Exposure controls

| | | |
|--|---|----------------------------------|
| Appropriate engineering controls | 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. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. 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. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. | |
| | For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant. | |
| | Type of Contaminant: | Air Speed: |
| | solvent, vapours, degreasing etc., evaporating from tank (in still air). | 0.25-0.5 m/s (50-100 f/min.) |
| | aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation) | 0.5-1 m/s (100-200 f/min.) |
| | direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion) | 1-2.5 m/s (200-500 f/min.) |
| | Within each range the appropriate value depends on: | |
| | Lower end of the range | Upper end of the range |
| | 1: Room air currents minimal or favourable to capture | 1: Disturbing room air currents |
| | 2: Contaminants of low toxicity or of nuisance value only. | 2: Contaminants of high toxicity |
| 3: Intermittent, low production. | 3: High production, heavy use | |
| 4: Large hood or large air mass in motion | 4: Small hood-local control only | |
| Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min.) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used. | | |
| Personal protection |  | |
| Eye and face protection | <ul style="list-style-type: none">▶ Safety glasses with side shields.▶ Chemical goggles.▶ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses 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. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent] | |
| Skin protection | See Hand protection below | |
| Hands/feet protection | <ul style="list-style-type: none">▶ Wear chemical protective gloves, e.g. PVC.▶ Wear safety footwear or safety gumboots, e.g. Rubber▶ Rubber Gloves | |
| Body protection | See Other protection below | |
| Other protection | <ul style="list-style-type: none">▶ Overalls.▶ PVC Apron.▶ PVC protective suit may be required if exposure severe.▶ Eyewash unit.▶ Ensure there is ready access to a safety shower. | |

Respiratory protection

Type AX 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 5 x ES | Air-line* | AX-2 | AX-PAPR-2 ^ |
| up to 10 x ES | - | AX-3 | - |
| 10+ x ES | - | Air-line** | - |

* - Continuous Flow; ** - Continuous-flow or positive pressure demand

^ - 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 =

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Agricultural chemicals, K = Ammonia(NH₃), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- ▶ Cartridge respirators should never be used for emergency ingress or in areas of unknown vapour concentrations or oxygen content.
- ▶ The wearer must be warned to leave the contaminated area immediately on detecting any odours through the respirator. The odour may indicate that the mask is not functioning properly, that the vapour concentration is too high, or that the mask is not properly fitted. Because of these limitations, only restricted use of cartridge respirators is considered appropriate.
- ▶ Cartridge performance is affected by humidity. Cartridges should be changed after 2 hr of continuous use unless it is determined that the humidity is less than 75%, in which case, cartridges can be used for 4 hr. Used cartridges should be discarded daily, regardless of the length of time used

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

| | | | |
|---|---|--|----------------|
| Appearance | Clear, pale yellow slightly viscous liquid with ester like odour, mixes with water. | | |
| Physical state | Liquid | Relative density (Water = 1) | 0.8-1.15 |
| Odour | Not Available | Partition coefficient n-octanol / water | Not Available |
| Odour threshold | Not Available | Auto-ignition temperature (°C) | Not Available |
| pH (as supplied) | Not Available | Decomposition temperature | Not Available |
| Melting point / freezing point (°C) | Not Available | Viscosity (cSt) | Not Available |
| Initial boiling point and boiling range (°C) | gels before boiling | Molecular weight (g/mol) | Not Applicable |
| Flash point (°C) | Not Available | Taste | Not Available |
| Evaporation rate | Not Available | Explosive properties | Not Available |
| Flammability | Not Available | Oxidising properties | Not Available |
| Upper Explosive Limit (%) | 13 | Surface Tension (dyn/cm or mN/m) | Not Available |
| Lower Explosive Limit (%) | 3 | Volatile Component (%vol) | Not Available |
| Vapour pressure (kPa) | Not Available | Gas group | Not Available |
| Solubility in water | Miscible | pH as a solution (1%) | Not Available |
| Vapour density (Air = 1) | Not Available | VOC g/L | Not Available |

SECTION 10 Stability and reactivity

| | |
|---|--|
| Reactivity | See section 7 |
| Chemical stability | <ul style="list-style-type: none"> ▶ Unstable in the presence of incompatible materials. ▶ Product is considered stable. ▶ 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 | Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system, in a substantial number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs. Respiratory tract irritation often results in an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system. Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo. |
| Ingestion | Accidental ingestion of the material may be damaging to the health of the individual. |
| Skin Contact | Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. Evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis. |
| Eye | Evidence exists, or practical experience predicts, that the material may cause severe eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Eye contact may cause significant inflammation with pain. Corneal injury may occur; permanent impairment of vision may result unless treatment is prompt and adequate. Repeated or prolonged exposure to irritants may cause inflammation characterised by a temporary redness (similar to |

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| | windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|----------|------------|----------------------------|---------------------------------|-------------------------|-----------------------------------|----------------------------|--------------------------------|---------------------------|--|--------------------------------|-----------------------------------|--------------------------|-----------------------------------|---------------------------|--|---------------------------|--|--------------------------------|--|---------------------------|--|--|--|--|--|--|--|---|--|---|--|---|--|
| Chronic | <p>Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Practical experience shows that skin contact with the material is capable either of inducing a sensitisation reaction in a substantial number of individuals, and/or of producing a positive response in experimental animals.</p> <p>Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following.</p> <p>Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stae | <table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>Not Available</td><td>Not Available</td></tr> </table> | TOXICITY | IRRITATION | Not Available | Not Available | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOXICITY | IRRITATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Not Available | Not Available | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| acetone | <table> <tr> <th>TOXICITY</th><th>IRRITATION</th></tr> <tr> <td>=1159 mg/kg^[2]</td><td>Eye (human): 500 ppm - irritant</td></tr> <tr> <td>10 mg/kg^[2]</td><td>Eye (rabbit): 20mg/24hr -moderate</td></tr> <tr> <td>12000 mg/kg^[2]</td><td>Eye (rabbit): 3.95 mg - SEVERE</td></tr> <tr> <td>3100 mg/kg^[2]</td><td>Eye: adverse effect observed (irritating)^[1]</td></tr> <tr> <td>4000-8000 mg/kg^[2]</td><td>Skin (rabbit): 500 mg/24hr - mild</td></tr> <tr> <td>500 mg/kg^[2]</td><td>Skin (rabbit):395mg (open) - mild</td></tr> <tr> <td>5000 mg/kg^[2]</td><td>Skin: no adverse effect observed (not irritating)^[1]</td></tr> <tr> <td>5000 mg/kg^[2]</td><td></td></tr> <tr> <td>5600-8000 mg/kg^[2]</td><td></td></tr> <tr> <td>8000 mg/kg^[2]</td><td></td></tr> <tr> <td>Dermal (rabbit) LD50: 20000 mg/kg^[2]</td><td></td></tr> <tr> <td>Inhalation (rat) LC50: 100.2 mg/l/8hr^[2]</td><td></td></tr> <tr> <td>Oral (mouse) LD50: 3000 mg/kg^[2]</td><td></td></tr> <tr> <td>Oral (rat) LD50: =5800 mg/kg^[2]</td><td></td></tr> <tr> <td>Oral (rat) LD50: =8450 mg/kg^[2]</td><td></td></tr> <tr> <td>Oral (rat) LD50: 1800-7300 mg/kg^[2]</td><td></td></tr> </table> | TOXICITY | IRRITATION | =1159 mg/kg ^[2] | Eye (human): 500 ppm - irritant | 10 mg/kg ^[2] | Eye (rabbit): 20mg/24hr -moderate | 12000 mg/kg ^[2] | Eye (rabbit): 3.95 mg - SEVERE | 3100 mg/kg ^[2] | Eye: adverse effect observed (irritating) ^[1] | 4000-8000 mg/kg ^[2] | Skin (rabbit): 500 mg/24hr - mild | 500 mg/kg ^[2] | Skin (rabbit):395mg (open) - mild | 5000 mg/kg ^[2] | Skin: no adverse effect observed (not irritating) ^[1] | 5000 mg/kg ^[2] | | 5600-8000 mg/kg ^[2] | | 8000 mg/kg ^[2] | | Dermal (rabbit) LD50: 20000 mg/kg ^[2] | | Inhalation (rat) LC50: 100.2 mg/l/8hr ^[2] | | Oral (mouse) LD50: 3000 mg/kg ^[2] | | Oral (rat) LD50: =5800 mg/kg ^[2] | | Oral (rat) LD50: =8450 mg/kg ^[2] | | Oral (rat) LD50: 1800-7300 mg/kg ^[2] | |
| TOXICITY | IRRITATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| =1159 mg/kg ^[2] | Eye (human): 500 ppm - irritant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 mg/kg ^[2] | Eye (rabbit): 20mg/24hr -moderate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12000 mg/kg ^[2] | Eye (rabbit): 3.95 mg - SEVERE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3100 mg/kg ^[2] | Eye: adverse effect observed (irritating) ^[1] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4000-8000 mg/kg ^[2] | Skin (rabbit): 500 mg/24hr - mild | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 500 mg/kg ^[2] | Skin (rabbit):395mg (open) - mild | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5000 mg/kg ^[2] | Skin: no adverse effect observed (not irritating) ^[1] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5000 mg/kg ^[2] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5600-8000 mg/kg ^[2] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8000 mg/kg ^[2] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dermal (rabbit) LD50: 20000 mg/kg ^[2] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inhalation (rat) LC50: 100.2 mg/l/8hr ^[2] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oral (mouse) LD50: 3000 mg/kg ^[2] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oral (rat) LD50: =5800 mg/kg ^[2] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oral (rat) LD50: =8450 mg/kg ^[2] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oral (rat) LD50: 1800-7300 mg/kg ^[2] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | |
|----------------|--|
| ACETONE | <p>The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.</p> <p>for acetone:</p> <p>The acute toxicity of acetone is low. Acetone is not a skin irritant or sensitizer but is a defatting agent to the skin. Acetone is an eye irritant. The subchronic toxicity of acetone has been examined in mice and rats that were administered acetone in the drinking water and again in rats treated by oral gavage. Acetone-induced increases in relative kidney weight changes were observed in male and female rats used in the oral 13-week study. Acetone treatment caused increases in the relative liver weight in male and female rats that were not associated with histopathologic effects and the effects may have been associated with microsomal enzyme induction. Haematologic effects consistent with macrocytic anaemia were also noted in male rats along with hyperpigmentation in the spleen. The most notable findings in the mice were increased liver and decreased spleen weights. Overall, the no-observed-effect-levels in the drinking water study were 1% for male rats (900 mg/kg/d) and male mice (2258 mg/kg/d), 2% for female mice (5945 mg/kg/d), and 5% for female rats (3100 mg/kg/d). For developmental effects, a statistically significant reduction in foetal weight, and a slight, but statistically significant increase in the percent incidence of later resorptions were seen in mice at 15,665 mg/m3 and in rats at 26,100 mg/m3. The no-observable-effect level for developmental toxicity was determined to be 5220 mg/m3 for both rats and mice.</p> <p>Teratogenic effects were not observed in rats and mice tested at 26,110 and 15,665 mg/m3, respectively. Lifetime dermal carcinogenicity studies in mice treated with up to 0.2 mL of acetone did not reveal any increase in organ tumor incidence relative to untreated control animals. The scientific literature contains many different studies that have measured either the neurobehavioural performance or neurophysiological response of humans exposed to acetone. Effect levels ranging from about 600 to greater than 2375 mg/m3 have been reported. Neurobehavioral studies with acetone-exposed employees have recently shown that 8-hr exposures in excess of 2375 mg/m3 were not associated with any dose-related changes in response time, vigilance, or digit span scores. Clinical case studies, controlled human volunteer studies, animal research, and occupational field evaluations all indicate that the NOAEL for this effect is 2375 mg/m3 or greater.</p> |
|----------------|--|

| | | | |
|--|---|---------------------------------|---|
| 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

| Stae | Endpoint | Test Duration (hr) | Species | Value | Source |
|------|----------|--------------------|---------|-------|--------|
|------|----------|--------------------|---------|-------|--------|

Continued...

Stae

| | | | | | |
|----------------|---|--------------------|---------------|---------------|---------------|
| | Not Available | Not Available | Not Available | Not Available | Not Available |
| acetone | Endpoint | Test Duration (hr) | Species | Value | Source |
| | LC50 | 96 | Fish | 5-540mg/L | 2 |
| | EC50 | 48 | Crustacea | 6098.4mg/L | 5 |
| | NOEC | 240 | Crustacea | 1-866mg/L | 2 |
| Legend: | Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 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 | | | | |

DO NOT discharge into sewer or waterways.

Persistence and degradability

| Ingredient | Persistence: Water/Soil | Persistence: Air |
|------------|---------------------------|----------------------------------|
| acetone | LOW (Half-life = 14 days) | MEDIUM (Half-life = 116.25 days) |

Bioaccumulative potential

| Ingredient | Bioaccumulation |
|------------|------------------|
| acetone | LOW (BCF = 0.69) |

Mobility in soil

| Ingredient | Mobility |
|------------|--------------------|
| acetone | HIGH (KOC = 1.981) |


SECTION 13 Disposal considerations

Waste treatment methods

| | |
|------------------------------|--|
| Product / Packaging disposal | <ul style="list-style-type: none"> Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. <p>Otherwise:</p> <ul style="list-style-type: none"> If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Where possible retain label warnings and SDS and observe all notices pertaining to the product. DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority. <p>Consult State Land Waste Management Authority for disposal. Bury residue in an authorised landfill.</p> |
|------------------------------|--|

SECTION 14 Transport information

Labels Required

| | |
|------------------|---|
| |  |
| Marine Pollutant | NO |

Land transport (TDG)

| | | | |
|------------------------------|---|----------------|--|
| UN number | 1993 | | |
| UN proper shipping name | FLAMMABLE LIQUID, N.O.S. (contains acetone) | | |
| Transport hazard class(es) | Class | 3 | |
| | Subrisk | Not Applicable | |
| Packing group | II | | |
| Environmental hazard | Not Applicable | | |
| Special precautions for user | Special provisions | 16, 150 | |
| | Explosive Limit and Limited Quantity Index | 1 L | |
| | ERAP Index | Not Applicable | |

Air transport (ICAO-IATA / DGR)

| | |
|-------------------------|---|
| UN number | 1993 |
| UN proper shipping name | Flammable liquid, n.o.s. * (contains acetone) |

Continued...

Stae

| | | |
|------------------------------|---|----------------|
| Transport hazard class(es) | ICAO/IATA Class | 3 |
| | ICAO / IATA Subrisk | Not Applicable |
| | ERG Code | 3H |
| Packing group | II | |
| Environmental hazard | Not Applicable | |
| Special precautions for user | Special provisions | A3 |
| | Cargo Only Packing Instructions | 364 |
| | Cargo Only Maximum Qty / Pack | 60 L |
| | Passenger and Cargo Packing Instructions | 353 |
| | Passenger and Cargo Maximum Qty / Pack | 5 L |
| | Passenger and Cargo Limited Quantity Packing Instructions | Y341 |
| | Passenger and Cargo Limited Maximum Qty / Pack | 1 L |

Sea transport (IMDG-Code / GGVSee)

| | | |
|------------------------------|---|----------------|
| UN number | 1993 | |
| UN proper shipping name | FLAMMABLE LIQUID, N.O.S. (contains acetone) | |
| Transport hazard class(es) | IMDG Class | 3 |
| | IMDG Subrisk | Not Applicable |
| Packing group | II | |
| Environmental hazard | Not Applicable | |
| Special precautions for user | EMS Number | F-E , S-E |
| | Special provisions | 274 |
| | Limited Quantities | 1 L |

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

If packed as Chemical kits the following classification may be considered if all ICAO/IATA transport requirements are met: Chemical Kit UN3316 - Class 9, SP A44 & A163.

SECTION 15 Regulatory information

Safety, health and environmental regulations / legislation specific for the substance or mixture

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

acetone is found on the following regulatory lists

Canada Categorization decisions for all DSL substances
Canada Domestic Substances List (DSL)

Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS GHS

National Inventory Status

| National Inventory | Status |
|--------------------------------|--|
| Australia - AIIIC | Yes |
| Australia - Non-Industrial Use | No (acetone) |
| Canada - DSL | Yes |
| Canada - NDSL | No (acetone) |
| China - IECSC | Yes |
| Europe - EINEC / ELINCS / NLP | Yes |
| Japan - ENCS | Yes |
| Korea - KECI | Yes |
| New Zealand - NZIoC | Yes |
| Philippines - PICCS | Yes |
| USA - TSCA | Yes |
| Taiwan - TCSI | Yes |
| Mexico - INSQ | Yes |
| Vietnam - NCI | Yes |
| Russia - ARIPS | Yes |
| Legend: | <p>Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)</p> |

SECTION 16 Other information

Continued...

Stae

| | |
|---------------|------------|
| Revision Date | 01/11/2019 |
| Initial Date | 16/11/2015 |

SDS Version Summary

| Version | Issue Date | Sections Updated |
|---------|------------|--|
| 5.1.1.1 | 04/04/2017 | Physical Properties |
| 6.1.1.1 | 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 SDI Limited 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
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

The information contained in the Safety Data Sheet is based on data considered to be accurate, however, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof.

Other information:

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