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Infosafe No™ 1CH01 Issue Date: December 2019 RE-ISSUED by ABS

Product Name: **ACETONE** 

Classified as hazardous

1. Identification

**GHS Product** 

**ACETONE** 

Identifier

AUSTRALIAN BIOSTAIN Pty Ltd **Company Name** 

**Address** 

24 - 28 Stratton Drive,

Traralgon, Victoria, Australia, 3844 www.australianbiostain.com.au

Telephone/Fax

Tel: (03) 5176 2855

Number

**Emergency phone** 

restrictions on use

number Recommended use CHEMCALL (24 hours): 1800 127 406 (Australia) / +64-4-917-9888 (International)

Solvent used in the processing of resin, lacquer, varnish, wax, adhesive, ink, paint and plastic, of the chemical and chemicals (methyl isobutyl ketone, methyl isobutyl carbinol, methyl methacrylate, bisphenol-A), solvent

> for potassium iodide and permanganate, delusterant for cellulose acetate fibres, photography, specification testing of vulcanised rubber products, cleaning and drying of precision equipment,

analytical reagent and laboratory reagent.

**Other Names Name Product Code** 

> AA ACTONE AR

Other Information Australian Biostain Pty Ltd does not warrant that this product is suitable for any use or purpose. The

user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Australian Biostain Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Australian Biostain Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

2. Hazard Identification

**GHS** classification Eye Damage/Irritation: Category 2A Flammable Liquids: Category 2 of the

Specific Target Organ Toxicity - Single Exposure Category 2 substance/mixture

Signal Word (s)

H225 Highly flammable liquid and vapour. **Hazard Statement** 

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

AUH066 Repeated exposure may cause skin dryness or cracking

Flame, Exclamation mark, Pictogram (s)





**Precautionary** statement -

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment. Prevention

P241 Use explosion-proof electrical/ventilating/lighting/.../equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Precautionary** statement -Response

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse

skin with water/shower.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for

breathing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses,



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if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

**Precautionary** statement - Storage P403+P233 Store in a well-ventilated place. Keep container tightly closed.

**Precautionary** 

P501 Dispose of contents/container to an approved waste disposal plant.

statement -Disposal

Other Information Exposure to acetone may enhance the liver toxicity of chlorinated solvents.

3. Composition/information on ingredients

Chemical

Ingredients

Liquid Characterization

Information on Composition

Derived by the oxidation of cumene, dehydrogenation or oxidation of isopropyl alcohol with metallic

catalyst, vapour phase oxidation of butane or a by-product of synthetic glycerol production. **CAS Proportion Hazard Symbol Risk Phrase** 

Acetone 67-64-1 98-100 %

4. First-aid measures

Inhalation If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not

breathing. If breathing is difficult, give oxygen. Immediately obtain medical aid if cough or other

symptoms appear.

Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. Ingestion

DO NOT INDUCE VOMITING. Seek medical advice if effects persist.

Immediately remove contaminated clothing and wash affected area with water for at least 15 minutes. Skin

Ensure contaminated clothing is washed before re-use. Seek medical advice /attention depending on the

Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. In all Eye contact

cases of eye contamination it is a sensible precaution to seek medical advice.

**First Aid Facilities** Maintain eyewash fountain and safety shower in work area.

Treat symptomatically based on judgement of doctor and individual reactions of the patient. **Advice to Doctor** 

For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 **Other Information** 

766) or a doctor at once.

5. Fire-fighting measures

Hazards from Combustion **Products** 

May librate toxic fumes in fire includes oxides of carbon.

**Specific Methods** Caution: Use of water spray when fighting fire may be inefficient. Small fire: Use foam, dry chemical, CO2 or water spray.

Large fire: Use foam, fog or water spray - Do not use water jets.

If safe to do so, move undamaged containers from fire area. Cool containers with flooding quantities of

water until well after fire is out. Avoid getting water inside the containers.

Specific hazards arising from the chemical

HIGHLY FLAMMABLE: These products have a low flash point - Will be easily ignited by heat, sparks or flames at ambient temperatures. Vapours will form explosive mixtures with air. Vapours will travel to source of ignition and flash back. Fire may produce irritating, poisonous and/or corrosive gases.

Containers may explode when heated. Many liquids are lighter than water.

Many vapours are heavier than air and will collect in low or confined areas (drains, basements, tanks).

Vapours from run-off may create an explosion hazard.

**Hazchem Code** •2YE

Precautions in

SCBA and structural firefighter's uniform may provide limited protection. Fully-encapsulating, gas-tight

connection with Fire suits should be worn for maximum protection.

6. Accidental release measures

Spills & Disposal ELIMINATE all ignition sources (no smoking, flares, sparks or flame) within at least 50m - All equipment

> used in handling the product must be earthed. Do not touch or walk through spilled material.

Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas.

Vapour-suppressing foam may be used to control vapours.



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**Footnote** 

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Absorb spill with earth, sand or other non-combustible material - Use clean, non-sparking tools to collect material and place it in loosely-covered metal or plastic containers for later disposal. Water spray may

be used to knock down or divert vapour clouds.

SEEK EXPERT ADVICE ON HANDLING AND DISPOSAL.

**Personal Precautions Personal Protection** 

Take precautionary measures against static discharge. Evacuate the area of all non-essential

personnel. Avoid inhalation, contact with skin, eyes and clothing. Wear protective clothing specified for normal operations (see Section 8)

Clean-up Methods -**Small Spillages** 

Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled

drum or overdrum.

**Environmental Precautions** 

Prevent from entering into drains, ditches, rivers or the sea. Avoid release to the environment.

### 7. Handling and storage

Handling

Precautions for Safe Take precautionary measures against static discharges. All electrical equipment must be flameproofed. Avoid breathing vapour, spray or mists. Avoid prolonged or repeated contact with skin and eyes Store in a cool place. Store in well ventilated area. Store away from sources of heat or ignition. Store

**Conditions for safe** storage, including

away from oxidising agents and strong acids and bases. Keep containers securely sealed.

incompatabilities

Storage Regulations Refer Australian Standard AS 1940-2017 'The storage and handling of flammable and combustible liquids'.

8. Exposure controls/personal protection

Occupational exposure limit values

Name STEL TWA

> mg/m3 mg/m3 ppm <u>ppm</u> 1185 2375 1000 500

Other Exposure Information

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous

concentrations of chemicals. They are not a measure of relative toxicity.

A time weighted average (TWA) has been established for Acetone [67-64-1] (Safe Work Australia) of 1185 mg/m³, (500 ppm). The corresponding STEL level is 2375 mg/m³, (1000 ppm). The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day

Acetone

**Appropriate** 

In industrial situations maintain the concentrations values below the TWA. This may be achieved by engineering controls process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.

Respiratory **Protection** 

Where ventilation is not adequate, respiratory protection may be required. Avoid breathing vapours or mists. Select and use respirators in accordance with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. When mists or vapours exceed the exposure standards then the use of the following is recommended: Approved respirator with organic vapour and dust/mist filters. Filter capacity and respirator type depends on exposure levels.

Recommendation: Combined particulate/gas respirator.

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. **Eye Protection** 

Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336. Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves

Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments. Avoid skin contact when removing gloves from hands, do not touch the

gloves outer surface. Dispose of gloves as hazardous waste.

**Personal Protective** Equipment

**Hand Protection** 

Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New





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Zealand or other approved standards.

Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, **Footwear** 

Occupational protective footwear - Guide to selection, care and use.

**Body Protection** Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection

against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Recommendation: Flame retardant protective clothing.

**Hygiene Measures** Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other

protective equipment before storing or re-using.

9. Physical and chemical properties

Liquid

Colourless liquid. **Appearance** 

Odour Characteristic, sweetish odour.

**Melting Point** -94 - 95 °C **Boiling Point** 56 - 56.5 °C

Solubility in Water Miscible with water.

Solubility in Organic Miscible with alcohol, ether, chloroform, DMF and most oils.

**Solvents** 

**Specific Gravity** 0.792 @ 20 °C

Hq 5-6 (395 g/l, H2O, 20 °C)

180 mmHg (20 °C) **Vapour Pressure** 

**Vapour Density** 

(Air=1)

2.0

0.303 cP @ 25 °C Viscosity

Volatile Component 100%

**Flash Point** <-20 °C (CC) Flammable liquid. **Flammability** 

**Auto-Ignition** 

465 °C

**Temperature** 

Flammable Limits -2.9 %

Lower

Flammable Limits -12.8%

Upper

58.08 **Molecular Weight** 

Refractive index: 1.3591 @ 20 °C Other Information

Dipole moment: 2.7 Debye @ 20 °C Dielectric constant: 20.7 @ 25 °C

Saturation concentration: 533 g/m3 @ 20 °C Heat of evaporation: 521 kJ/kg @ 56 °C

10. Stability and reactivity

Stable under normal use conditons. Hygroscopic Sensitive to moisture. **Chemical Stability** 

Conditions to Avoid Exposure to air. Light, heat, incompatibles.

Incompatible Oxidising agents (ie. CrO3, peroxi compounds, nitric acid, nitrating acid), reducing agents, alkali

hydroxides, halogens, chloroform, chlorine compounds halogenated hydrocarbons/alkali hydroxides, halogen-halogen compounds, halogen oxides, alkali metals, nitrosyl compounds, metals, ethanolamine,

nitric/sulfuric acid mixtures, strong acids and bases and various plastics and rubber.

**Hazardous Decomposition** 

**Materials** 

May librate toxic fumes in fire includes oxides of carbon.

**Products** Possibility of

Reacts violently with bromoform and chloroform in the presence of alkalis or in contact with alkaline hazardous reactions surfaces. Decomposes violently in contact with nitric/sulfuric acid mixtures. Can react violently with

oxidising agents.

**Hazardous** Polymerization Will not occur.





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11. Toxicological Information

Acute Toxicity - Oral LD50 (rat): 5800 mg/kg.

Acute Toxicity - LD50 (rabbit): 20000 mg/kg.

Dermal

Ingestion Swallowing small amounts is not likely to produce harmful effects. Digestion in large quantities may lead

to gastrointestinal complaints, headaches, salivation, nausea, vomiting, dizziness, narcosis and coma.

Inhalation
Inhalation Inhalation of vapours concentrations causes respiratory tract and mucosal membrane irritation, dryness of the mouth and throat, dizziness, headaches, drowsiness, salivation, depression, nausea, vomiting and

in severe cases leading to a coma.

**Skin** Contact with skin may result in irritation. Will have a degreasing action on the skin.

Eye Risk of corneal clouding! Vapours are irritating to the eyes. Splashes may cause severe irritation, with

stinging, tearing, redness and pain.

**Respiratory** Not classified based on available information.

sensitisation

Skin Sensitisation Not classified based on available information.

Germ cell Not classified based on available information.

mutagenicity
Carcinogenicity

No evidence of carcinogenic properties.

Reproductive Toxicity

Not classified based on available information.

STOT-single exposure

Not classified based on available information.

STOT-repeated

Not classified based on available information.

exposure

Not classified based on available information.

Aspiration Hazard No.

Repeated or prolonged skin contact can cause skin dryness, cracking and chronic dermatitis. Due to its

low toxicity and high volatility, acetone is unlikdely to be absrobed through the skin in harmful amounts

unless evaporation is prevented. May damage the liver and kidneys.

**Mutagenicity** No evidence of mutagenic properties.

12. Ecological information

Persistence and degradability

Readily biodegradable, Biodegradation: 91%/28d.

**Environmental Fate** 

Behaviour in environmental compartments: Distribution: log p(o/w): -0.24 (experimental)

No bioaccumulation is to be expected (log P(o/w < 1).

Bioconcentration factor: 0.69.

Further ecologic data - Degradability:

BOD5: 1.85 g/g; COD: 2.07 g/g; TOD: 2.20 g/g.

Bioaccumulative

Does not bioaccumulate.

**Potential** 

Environmental

Avoid contaminating waterways. Harmful to aquatic life.

Protection

Acute Toxicity - Fish LC50 (L.macrochirus): 8300 mg/l/96h.

Acute Toxicity - EC50 (Daphnia magna): 12600-12700 mg/l/48h.

Daphnia

Acute Toxicity - Maximum permissible toxic concentration:
Algae IC5 (Sc.quadricauda): 7500 mg/l/8 d.

Acute Toxicity - Bacteria

Maximum permissible toxic concentration: EC5 (M.aeruginosa): 530 mg/l/8 d. EC5 (Ps.putida): 1700 mg/l/16 d.

EC5 (E.Sulcatum): 28 mg/l/72 h.

13. Disposal considerations

Disposal Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

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### 14. Transport information

Transport Dangerous goods of Class 3 (Flammable Liquid) are incompatible in a placard load with any of the

**Information** following

Class 1, Class 2.1, if both the Class 3 and Class 2.1 dangerous goods are in bulk, Class 2.3, Class 4.2,

Class 5, Class 6, if the Class 3 dangerous goods are nitromethane, Class 7.

**U.N. Number** 1090

**UN proper shipping** ACETONE

name

Transport hazard

class(es)

3

Hazchem Code •2YE
Packing Group ||
EPG Number 3A1
IERG Number 14

### 15. Regulatory information

Regulatory Listed in the Australian Inventory of Chemical Substances (AICS). Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Poisons Schedule S5

#### 16. Other Information

#### Literature References

'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons,

Inc., NY, 1997.

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road

and Rail 7th. Ed.', 2007.

Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous Chamicals', 2011

Chemicals', 2011.

Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide',

Standards Australia/Standards New Zealand, 2010.

Safe Work Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008 (2004)]'.

Safe Work Australia, 'Hazardous Chemical Information System, 2005'.

Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances

(2011)'.

Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational

Environment [NOHSC:1003(1995) 3rd Edition]'.

### Empirical Formula & CH3COCH3

### Structural Formula

...End Of MSDS...

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