

2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide

Novachem Pty Ltd

Version No: 2.2

Safety Data Sheet according to WHS and ADG requirements

Chemwatch Hazard Alert Code: 2

Issue Date: 12/09/2018

Print Date: 12/09/2018

S.GHS.AUS.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide
Chemical Name	2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide
Synonyms	013-19342 017-19345
Proper shipping name	SELF-HEATING SOLID, ORGANIC, N.O.S. (contains 2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide)
Chemical formula	C12H24N4O4
Other means of identification	Not Available
CAS number	61551-69-7*

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

Relevant identified uses	For research purposes
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Details of the supplier of the safety data sheet

Registered company name	Novachem Pty Ltd
Address	25 Crissane Road, Heidelberg West Victoria 3081 Australia
Telephone	+61384151255
Fax	+61386250088
Website	www.novachem.com.au
Email	novachem@novachem.com.au

Emergency telephone number

Association / Organisation	Victorian Poisons Information Centre
Emergency telephone numbers	13 11 26
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

Poisons Schedule	Not Applicable
Classification ^[1]	Flammable Solid Category 2, Self-Heating Material Category 1, Skin Sensitizer Category 1, Chronic Aquatic Hazard Category 3
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

Label elements

Hazard pictogram(s)	
SIGNAL WORD	DANGER

Hazard statement(s)

H228	Flammable solid.
H251	Self-heating: may catch fire.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

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Precautionary statement(s) Prevention

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P235+P410	Keep cool. Protect from sunlight.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P240	Ground/bond container and receiving equipment.

Precautionary statement(s) Response

P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use water jets for extinction.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.

Precautionary statement(s) Storage

P407	Maintain air gap between stacks/pallets.
P413	Store bulk masses greater than ... kg/...lbs at temperatures not exceeding ...°C/...°F.
P420	Store away from other materials.

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

CAS No	%[weight]	Name
61551-69-7	>98	<u>2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide</u>

Mixtures

See section above for composition of Substances

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	▶ If in eyes, hold eyelids apart and flush the eye continuously with running water. ▶ Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. ▶ 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. ▶ Seek medical attention without delay; if pain persists or recurs seek medical attention. ▶ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. For THERMAL burns: ▶ Do NOT remove contact lens ▶ Lay victim down, on stretcher if available and pad BOTH eyes, make sure dressing does not press on the injured eye by placing thick pads under dressing, above and below the eye. ▶ Seek urgent medical assistance, or transport to hospital.
Skin Contact	If skin or hair contact occurs: ▶ Immediately flush body and clothes with large amounts of water, using safety shower if available. ▶ Quickly remove all contaminated clothing, including footwear. ▶ Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. ▶ Transport to hospital, or doctor. In case of burns: ▶ Immediately apply cold water to burn either by immersion or wrapping with saturated clean cloth. ▶ DO NOT remove or cut away clothing over burnt areas. DO NOT pull away clothing which has adhered to the skin as this can cause further injury. ▶ DO NOT break blister or remove solidified material. ▶ Quickly cover wound with dressing or clean cloth to help prevent infection and to ease pain. ▶ For large burns, sheets, towels or pillow slips are ideal; leave holes for eyes, nose and mouth. ▶ DO NOT apply ointments, oils, butter, etc. to a burn under any circumstances. ▶ Water may be given in small quantities if the person is conscious. ▶ Alcohol is not to be given under any circumstances. ▶ Reassure. ▶ Treat for shock by keeping the person warm and in a lying position. ▶ Seek medical aid and advise medical personnel in advance of the cause and extent of the injury and the estimated time of arrival of the patient. For thermal burns: ▶ Decontaminate area around burn. ▶ Consider the use of cold packs and topical antibiotics. For first-degree burns (affecting top layer of skin) ▶ Hold burned skin under cool (not cold) running water or immerse in cool water until pain subsides. ▶ Use compresses if running water is not available. ▶ Cover with sterile non-adhesive bandage or clean cloth. ▶ Do NOT apply butter or ointments; this may cause infection. ▶ Give over-the counter pain relievers if pain increases or swelling, redness, fever occur. For second-degree burns (affecting top two layers of skin) ▶ Cool the burn by immerse in cold running water for 10-15 minutes. ▶ Use compresses if running water is not available. ▶ Do NOT apply ice as this may lower body temperature and cause further damage.

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	- Do NOT break blisters or apply butter or ointments; this may cause infection. - Protect burn by cover loosely with sterile, nonstick bandage and secure in place with gauze or tape. To prevent shock: (unless the person has a head, neck, or leg injury, or it would cause discomfort): - Lay the person flat. - Elevate feet about 12 inches. - Elevate burn area above heart level, if possible. - Cover the person with coat or blanket. - Seek medical assistance. For third-degree burns Seek immediate medical or emergency assistance. In the mean time: - Protect burn area cover loosely with sterile, nonstick bandage or, for large areas, a sheet or other material that will not leave lint in wound. - Separate burned toes and fingers with dry, sterile dressings. - Do not soak burn in water or apply ointments or butter; this may cause infection. - To prevent shock see above. - For an airway burn, do not place pillow under the person's head when the person is lying down. This can close the airway. - Have a person with a facial burn sit up. - Check pulse and breathing to monitor for shock until emergency help arrives.
Inhalation	- If dust is inhaled, remove from contaminated area. - Encourage patient to blow nose to ensure clear passage of breathing. - If irritation or discomfort persists seek medical attention.
Ingestion	- Immediately give a glass of water. - First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

For **SMALL FIRES**:

- Dry chemical, CO₂, water spray or foam.

For **LARGE FIRES**:

- Foam, fog or water spray
- DO NOT** use water jets.

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
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Advice for firefighters

Fire Fighting	- Wear SCBA and fully-encapsulating, gas-tight suits when handling these substances. - Always wear thermal protective clothing when handling molten substances. - Structural fire fighter's uniform will only provide limited protection. - Alert Fire Brigade and tell them location and nature of hazard. - Wear full body protective clothing with breathing apparatus. - Prevent, by any means available, spillage from entering drains or water course. - Consider evacuation (or protect in place).
Fire/Explosion Hazard	- May ignite on contact with air leading to spontaneous combustion - May decompose explosively when heated or involved in fire. - May REIGNITE after fire is extinguished. - Gases generated in fire may be poisonous, corrosive or irritating. - Containers may explode on heating. Combustion products include: Combustible. Will burn if ignited. carbon monoxide (CO) carbon dioxide (CO₂) nitrogen oxides (NO_x) other pyrolysis products typical of burning organic material.
HAZCHEM	1Y

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	- Eliminate all ignition sources. - Cover with WET earth, sand or other non-combustible material. - Use clean, non-sparking tools to collect absorbed material - Wear gloves and safety glasses as appropriate.
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Major Spills

- ▶ Clear area of personnel and move upwind.
- ▶ Alert Fire Brigade and tell them location and nature of hazard.
- ▶ Eliminate all ignition sources (no smoking, flares, sparks or flames)
- ▶ Stop leak if safe to do so; prevent entry into waterways, drains or confined spaces.
- ▶ May be violently or explosively reactive.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	▶ For large scale or continuous use, spark-free, earthed ventilation system venting directly to the outside and separate from usual ventilation systems ▶ Provide dust collectors with explosion vents. ▶ Avoid all personal contact, including inhalation. ▶ Wear protective clothing when risk of overexposure occurs. ▶ Use in a well-ventilated area.
Other information	▶ Store under an inert gas, e.g. argon or nitrogen. FOR MINOR QUANTITIES: ▶ Store in an indoor fireproof cabinet or in a room of noncombustible construction. ▶ Provide adequate portable fire-extinguishers in or near the storage area. FOR PACKAGE STORAGE: ▶ Store in original containers in approved flame-proof area. ▶ No smoking, naked lights, heat or ignition sources.

Conditions for safe storage, including any incompatibilities

Suitable container	For low viscosity materials and solids: Drums and jerrycans must be of the non-removable head type. Where a can is to be used as an inner package, the can must have a screwed enclosure. For materials with a viscosity of at least 2680 cSt. (23 deg. C): ▶ Removable head packaging and ▶ cans with friction closures may be used.
Storage incompatibility	▶ Avoid reaction with oxidising agents

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide	Not Available	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide	Not Available	Not Available

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.
Personal protection	
Eye and face protection	▶ 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.
Skin protection	See Hand protection below
Hands/feet protection	NOTE: ▶ The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. ▶ Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. ▶ Fire resistant/ heat resistant gloves where practical, otherwise ▶ Heavy-duty chemically resistant gloves capable of providing short-term protection against spontaneous ignition.
Body protection	See Other protection below

Continued...

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Other protection

Wear protective clothing appropriate for the work situation.

For large scale or continuous use, when handling dry powder, wear :

- tight-weave, non-static, noncombustible or flameproof clothing without cuffs, metallic fasteners, pockets, or laps in which powder may collect.
- non-sparking safety or conductive footwear. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot and shall dissipate static electricity from the body to reduce the possibility of ignition of volatile compounds.

Respiratory protection

Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	P1 Air-line*	-	PAPR-P1
up to 50 x ES	Air-line**	-	-
up to 100 x ES	-	P2 P3 Air-line* Air-line**	PAPR-P2 - - PAPR-P3
100+ x ES	-	-	-

* - Negative pressure demand ** - Continuous flow

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	Not Available		
Physical state	Divided Solid	Relative density (Water = 1)	0.476
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)	138-145 (decomposes)	Viscosity (cSt)	Not Applicable
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	288.35
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 (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	0.004	Volatile Component (%vol)	Negligible
Vapour pressure (kPa)	Negligible	Gas group	Not Available
Solubility in water (g/L)	Miscible	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	Not Applicable	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	▶ May heat spontaneously ▶ Identify and remove sources of ignition and heating. ▶ Incompatible material, especially oxidisers, and/or other sources of oxygen may produce unstable product(s). ▶ Hazardous polymerization 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 material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
Ingestion	The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.
Skin Contact	The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Open cuts, abraded or irritated skin should not be exposed to this material

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	Entry into the blood-stream, through, for example, cuts, abrasions 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.
Eye	Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result.
Chronic	Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.

2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide	TOXICITY	IRRITATION
	Oral (rat) LD50: >2000 mg/kg ^[2]	Not Available
2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide	TOXICITY	IRRITATION
	Oral (rat) LD50: >2000 mg/kg ^[2]	Not Available

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

2,2'-AZOBIS[N-(2-HYDROXYETHYL)]-2-METHYLPROPANAMIDE	Ames test negative ** Halliburton SDS
2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide & 2,2'-AZOBIS[N-(2-HYDROXYETHYL)]-2-METHYLPROPANAMIDE	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.

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 available but does not fill the criteria for classification
 ✓ – Data available to make classification
 ⊖ – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available
2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
	Not Available	Not Available	Not Available	Not Available	Not Available

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

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide	LOW (LogKOW = -1.1785)

Mobility in soil

Ingredient	Mobility
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2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide

LOW (KOC = 10)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	- Containers may still present a chemical hazard/ danger when empty. - Return to supplier for reuse/ recycling if possible.
	Otherwise: - 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. - 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

	
Marine Pollutant	NO
HAZCHEM	1Y

Land transport (ADG)

UN number	3088
UN proper shipping name	SELF-HEATING SOLID, ORGANIC, N.O.S. (contains 2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide)
Transport hazard class(es)	Class : 4.2
	Subrisk : Not Applicable
Packing group	III
Environmental hazard	Not Applicable
Special precautions for user	Special provisions : 223 274
	Limited quantity : 0

Air transport (ICAO-IATA / DGR)

UN number	3088
UN proper shipping name	Self-heating solid, organic, n.o.s. * (contains 2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide)
Transport hazard class(es)	ICAO/IATA Class : 4.2
	ICAO / IATA Subrisk : Not Applicable
	ERG Code : 4L
Packing group	III
Environmental hazard	Not Applicable
Special precautions for user	Special provisions : A3
	Cargo Only Packing Instructions : 471
	Cargo Only Maximum Qty / Pack : 100 kg
	Passenger and Cargo Packing Instructions : 469
	Passenger and Cargo Maximum Qty / Pack : 25 kg
	Passenger and Cargo Limited Quantity Packing Instructions : Forbidden
	Passenger and Cargo Limited Maximum Qty / Pack : Forbidden

Sea transport (IMDG-Code / GGVSee)

UN number	3088
UN proper shipping name	SELF-HEATING SOLID, ORGANIC, N.O.S. (contains 2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide)

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Transport hazard class(es)	IMDG Class	4.2
	IMDG Subrisk	Not Applicable
Packing group	III	
Environmental hazard	Not Applicable	
Special precautions for user	EMS Number	F-A , S-J
	Special provisions	223 274
	Limited Quantities	0

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

Not Applicable

SECTION 15 REGULATORY INFORMATION

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

2,2'-AZOBIS[N-(2-HYDROXYETHYL)]-2-METHYLPROPANAMIDE(61551-69-7) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals

National Inventory Status

National Inventory	Status
Australia - AICS	N (2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide)
Canada - DSL	N (2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide)
Canada - NDSL	Y
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	Y
Korea - KECI	N (2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide)
New Zealand - NZIoC	N (2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide)
Philippines - PICCS	N (2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide)
USA - TSCA	Y
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Revision Date	12/09/2018
Initial Date	24/11/2017

Other information

Ingredients with multiple cas numbers

Name	CAS No
2,2'-azobis[N-(2-hydroxyethyl)]-2-methylpropanamide	61551-69-7, 125692-96-8

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
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

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