Wynn's Radiator Flush (R) ITW Polymers & Fluids

Chemwatch: **45194**Version No: **9.1.6.7**

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

Chemwatch Hazard Alert Code: 1

Issue Date: 01/11/2019 Print Date: 17/06/2021 S.GHS.AUS.EN

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

Product Identifier

Product name	Wynn's Radiator Flush (R)
Chemical Name	Not Applicable
Synonyms	Product Code: 65332
Chemical formula	Not Applicable
Other means of identification	Not Available

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

Bullion of Change Continues	De Patro Gradita a const
Relevant identified uses	Radiator flushing agent.

Details of the supplier of the safety data sheet

Registered company name	ITW Polymers & Fluids
Address	1-9 Nina Link, Dandenong South VIC 3175 Australia
Telephone	02 9757 8800
Fax	Not Available
Website	www.itwaamtech.com.au
Email	Not Available

Emergency telephone number

Association / Organisation	Chemwatch	CHEMWATCH EMERGENCY RESPONSE
Emergency telephone numbers	1800 039 008	+61 2 9186 1132
Other emergency telephone numbers	Not Available	+61 1800 951 288

Once connected and if the message is not in your prefered language then please dial ${\bf 01}$

SECTION 2 Hazards identification

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Poisons Schedule	S5
Classification [1]	Eye Irritation Category 2B, Reproductive Toxicity Category 1B, Skin Corrosion/Irritation Category 2
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

Danger

Hazard statement(s)

H320	Causes eye irritation.
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H360FD	May damage fertility. May damage the unborn child.
H315	Causes skin irritation.

Precautionary statement(s) General

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.

Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P280	Wear protective gloves and protective clothing.
P264	Wash all exposed external body areas thoroughly after handling.

Precautionary statement(s) Response

P308+P313	IF exposed or concerned: Get medical advice/ attention.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of water.

Precautionary statement(s) Storage

P405	Store locked up.
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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	
7632-00-0	<1	sodium nitrite	
1303-96-4	<1	sodium borate, decahydrate	
7631-95-0	<1	sodium molybdate	
Not Available	<1	other non-hazardous ingredients	
7732-18-5	>60 <u>water</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	If this product comes in contact with the eyes: Wash out immediately with fresh 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. 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.
Skin Contact	If skin contact occurs: 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	 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.

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.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 Firefighting measures

Ingestion

Extinguishing media

▶ There is no restriction on the type of extinguisher which may be used.

Special hazards arising from the substrate or mixture

Fire Incompatibility	None known
Advice for firefighters	
Advice for intelligities	▶ Alert Fire Brigade and tell them location and nature of hazard.
Fire Fighting	Wear breathing apparatus plus protective gloves in the event of a fire. Provent by any many profiles appliage from entering drains or water courses.

Fire/Explosion Hazard

- ▶ Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.
- Non combustible.
- ▶ Not considered to be a significant fire risk.
- Expansion or decomposition on heating may lead to violent rupture of containers.
- ▶ Decomposes on heating and may produce toxic fumes of carbon monoxide (CO).
- **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	 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 spill with sand, earth, inert material or vermiculite. 			
Major Spills	Minor hazard. Clear area of personnel. Alert Fire Brigade and tell them location and nature of hazard. Control personal contact with the substance, by using protective equipment as required.			

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

SECTION 7 Handling and storage

Precautions for safe handling

recautions for safe manufing			
Safe handling	 Limit all unnecessary personal contact. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. When handling DO NOT eat, drink or smoke. 		
Other information	 Store in original containers. Keep containers securely sealed. Store in a cool, dry, well ventilated area. DO NOT allow to freeze. 		

Conditions for safe storage, including any incompatibilities

Suitable container	 Lined metal can, lined metal pail/ can. Plastic pail. Polyliner drum. Packing as recommended by manufacturer.
Storage incompatibility	Segregate from strong acids

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure	sodium borate,	Borates, tetra, sodium salts (anhydrous)	1	Not	Not	Not
Standards	decahydrate		mg/m3	Available	Available	Available
Australia Exposure	sodium borate,	Borates, tetra, sodium salts (pentahydrate)	1	Not	Not	Not
Standards	decahydrate		mg/m3	Available	Available	Available
Australia Exposure	sodium borate,	Borates, tetra, sodium salts (decahydrate)	5	Not	Not	Not
Standards	decahydrate		mg/m3	Available	Available	Available
Australia Exposure Standards	sodium molybdate	Molybdenum, soluble compounds (as Mo)	5 mg/m3	Not Available	Not Available	Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
sodium nitrite	6.4 mg/m3	71 mg/m3	240 mg/m3
sodium borate, decahydrate	6 mg/m3	190 mg/m3	1,100 mg/m3
sodium borate, decahydrate	6 mg/m3	88 mg/m3	530 mg/m3
sodium molybdate	3.8 mg/m3	34 mg/m3	210 mg/m3
sodium molybdate	3.2 mg/m3	17 mg/m3	100 mg/m3

Ingredient	Original IDLH	Revised IDLH	
sodium nitrite	Not Available	Not Available	
sodium borate, decahydrate	Not Available	Not Available	
sodium molybdate	1,000 mg/m3	Not Available	
water	Not Available	Not Available	

Occupational Exposure Banding

Ingredient	Occupational Exposure Band Rating	Occupational Exposure Band Limit	
sodium nitrite	E	≤ 0.01 mg/m³	
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	None under normal operating conditions. Provide adequate ventilation in warehouse or closed storage areas.		
Personal protection			
Eye and face protection	No special equipment for minor exposure i.e. when handling small quantities. OTHERWISE: Safety glasses with side shields. 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	No special equipment needed when handling small quantities. OTHERWISE: Wear chemical protective gloves, e.g. PVC.		
Body protection	See Other protection below		
Other protection	No special equipment needed when handling small quantities • Overalls. • Eyewash unit.		

SECTION 9 Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Clear blue-green alkaline liquid; mixes with water.				
Physical state	Liquid	Relative density (Water = 1)	1.00		
Odour	Not Available	Partition coefficient n-octanol / water	Not Available		
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable		
pH (as supplied)	11.0	Decomposition temperature	Not Available		
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available		
Initial boiling point and boiling range (°C)	100	Molecular weight (g/mol)	Not Applicable		
Flash point (°C)	Not Applicable	Taste	Not Available		
Evaporation rate	Not Available	Explosive properties	Not Available		
Flammability	Not Applicable	Oxidising properties	Not Available		
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Available		
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Available		
Vapour pressure (kPa)	Not Available	Gas group	Not Available		
Solubility in water	Miscible	pH as a solution (%)	9.6 (3%)		
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available		

SECTION 10 Stability and reactivity

Reactivity	See section 7	
Chemical stability	oduct is considered stable and 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	Not normally a hazard due to non-volatile nature of product	
Ingestion	Ingestion may result in nausea, abdominal irritation, pain and vomiting	
Skin Contact	The material may cause 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.	
Eye	The liquid may produce eye discomfort causing temporary smarting and blinking.	
Chronic	Prolonged or continuous skin contact with the liquid may cause defatting with drying, cracking, irritation and dermatitis following.	

Not Available
IRRITATION
g/L4h ^[2] Eye (rabbit): 500 mg/24hr - mild
IRRITATION
mg/kg ^[2] Eye: adverse effect observed (irritating) ^[1]
Skin: no adverse effect observed (not irritating) ^[1]

	TOXICITY	IRRITATION
	dermal (rat) LD50: >2000 mg/kg ^[1]	Not Available
sodium molybdate	Inhalation(Rat) LC50; >1.93 mg/l4h ^[1]	
	Oral(Rat) LD50; >2000 mg/kg ^[1]	
	TOXICITY	IRRITATION
water	Oral(Rat) LD50; >90000 mg/kg ^[2]	Not Available
	Ofai(Rat) LD50, >90000 flig/kgt-	Not Available
Legend:	Value obtained from Europe ECHA Registered Substances - A	

Wynn's Radiator Flush (R)	Oral (unspecified) LDLo: >5000 mg/kg (estimated)[Wynn's]	
SODIUM NITRITE	Tumorigenic - Carcinogenic by RTECS criteria. Laboratory (in vitro) and animal studies show, exposure to the material may result in a possible risk of irreversible effects, with the possibility of producing mutation. The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.	
SODIUM BORATE, DECAHYDRATE	ral (rat) LD50: 4500-5000 mg/kg Eyes (rabbit) (-) Mild [Orica BORAX-Europe] Reproductive effector in rats Mutagenic towards acteria	
WATER	No significant acute toxicological data identified in literature search.	
SODIUM BORATE, DECAHYDRATE & SODIUM MOLYBDATE	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.	

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: X − Data either not available or does not fill the criteria for classification

✓ – Data available to make classification

SECTION 12 Ecological information

Toxicity

Wynn's Radiator Flush (R)	Endpoint	Test Duration (hr)	Species	Value	Source
	Not Available	Not Available	Not Available	Not Available	Not Available
	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	2h	Fish	0.02mg/l	4
sodium nitrite	EC50	72h	Algae or other aquatic plants	>100mg/l	2
	LC50	96h	Fish	0.54-26.3mg/l	2
	EC50	48h	Crustacea	ca.12.51mg/l	1
sodium borate, decahydrate	Endpoint	Test Duration (hr)	Species	Value	Source
	EC50	48h	Crustacea	1332-2135mg/l	4
acounyurate	EC50(ECx)	48h	Crustacea	1332-2135mg/l	4
	Endpoint	Test Duration (hr)	Species	Value	Source
	NOEC(ECx)	672h	Crustacea	0.67mg/l	2
sodium molybdate	EC50	72h	Algae or other aquatic plants	26mg/l	2
	LC50	96h	Fish	211mg/l	2
	EC50	48h	Crustacea	34.13-46.87mg/l	4

	Endpoint	Test Duration (hr)	Species	Value	Source
water	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				

DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
sodium nitrite	LOW	LOW
sodium molybdate	HIGH	HIGH
water	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation	
sodium nitrite	LOW (LogKOW = 0.0564)	
sodium molybdate	LOW (LogKOW = 2.229)	

Mobility in soil

Ingredient	Mobility
sodium nitrite	LOW (KOC = 23.74)
sodium molybdate	LOW (KOC = 48.64)

SECTION 13 Disposal considerations

Waste treatment methods

Product / Packaging
disposal

- ▶ Recycle wherever possible or consult manufacturer for recycling options.
- ► Consult State Land Waste Management Authority for disposal.
- ► Treat and neutralise with dilute acid at an effluent treatment plant.
- ▶ Recycle containers, otherwise dispose of in an authorised landfill.

SECTION 14 Transport information

Labels Required

Marine Pollutan	t NO
HAZCHEN	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
sodium nitrite	Not Available
sodium borate, decahydrate	Not Available
sodium molybdate	Not Available
water	Not Available

Transport in bulk in accordance with the ICG Code

Product name	Ship Type
sodium nitrite	Not Available

Product name	Ship Type
sodium borate, decahydrate	Not Available
sodium molybdate	Not Available
water	Not Available

SECTION 15 Regulatory information

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

sodium nitrite 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 5

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

sodium borate, decahydrate 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 4

sodium molybdate is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

water is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 7

Australian Inventory of Industrial Chemicals (AIIC)

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

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Group 2A: Probably carcinogenic to humans

Australian Inventory of Industrial Chemicals (AIIC)

Chemical Footprint Project - Chemicals of High Concern List

National Inventory Status

National Inventory	Status		
Australia - AIIC / Australia Non-Industrial Use	Yes		
Canada - DSL	Yes		
Canada - NDSL	No (sodium nitrite; sodium borate, decahydrate; sodium molybdate; water)		
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 - 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 and are not exempt from listing(see specific ingredients in brackets)		

SECTION 16 Other information

Revision Date	01/11/2019
Initial Date	20/03/2002

SDS Version Summary

Version	Date of Update	Sections Updated
8.1.1.1	29/03/2017	Supplier Information, Name
9.1.1.1	01/11/2019	One-off system update. NOTE: This may or may not change the GHS classification

Version	Date of Update	Sections Updated
9.1.2.1	26/04/2021	Regulation Change
9.1.3.1	03/05/2021	Regulation Change
9.1.4.1	06/05/2021	Regulation Change
9.1.5.1	10/05/2021	Regulation Change
9.1.5.2	30/05/2021	Template Change
9.1.5.3	04/06/2021	Template Change
9.1.5.4	05/06/2021	Template Change
9.1.6.4	07/06/2021	Regulation Change
9.1.6.5	09/06/2021	Template Change
9.1.6.6	11/06/2021	Template Change
9.1.6.7	15/06/2021	Template Change

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.

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