

THERMAL-XR® ENHANCE

Graphene Manufacturing Group Ltd

Product: Thermal-XR® ENHANCE

Version No: 8.0

Issue Date: 5/03/2025

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



SECTION 1 MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product Identifier

Product name	THERMAL-XR® ENHANCE
Chemical Name	Not Applicable
Synonyms	TXR ENHANCE

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

Relevant identified uses	Heat Transfer Graphene Dosed Coating
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Details of the supplier of the safety data sheet

Supplier	Graphene Manufacturing Group Ltd
Address	UNIT 5 /848 Boundary Road Richlands, Queensland Australia 4077
Telephone	+61 7 3063 6638 (Monday to Friday 9am to 5pm)
ABN	83 614 164 877 0
Website	www.graphenemg.com
Email	info@graphenemg.com

Emergency telephone number

Association / Organisation	Graphene Manufacturing Group Ltd
Emergency telephone numbers	+61 7 3063 6638 (Monday to Friday 9am to 5pm)
Other emergency telephone numbers	Poisons Information Centre: Australia 131 126 New Zealand 0800 764 766

SECTION 2 HAZARDS IDENTIFICATION

Based on available information this material is not classified as hazardous according to criteria of Safe Work Australia.

Poisons Schedule	Not Applicable
Dangerous Goods Classification	NOT classified as a Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road and Rail" and the New Zealand NZS5433. Transport of Dangerous Goods on Land.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

CAS No	Proportion	Chemical Entity
1034343-98-0	1% - 5%	Graphene
	98-99%	Proprietary information
	100%	Non-hazardous material

SECTION 4 FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation	Remove victim from exposure – avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow the patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.
Skin Contact	If skin or hair contact occurs remove all contaminated clothing and flush skin and hair with running water. If swelling, redness blistering, or irritation occurs seek medical assistance.

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Eye Contact	If in eyes wash out immediately with water. In cases of eye contamination it is a sensible precaution to seek medical advice.
Ingestion	Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.
Notes to physician	Treat symptomatically

SECTION 5 FIREFIGHTING MEASURES

Hazchem Code	Not applicable.
Suitable Extinguishing Media	If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).
Specific Hazards	Non-combustible material.
Firefighting further advice	Not applicable.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Small Spills	Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of spray and vapours. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.
Large Spills	Clear area of all unprotected personnel. Slippery when spilled. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain – prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Dangerous Goods Initial Emergency Response Guide No:	Not Applicable

SECTION 7 HANDLING & STORAGE

Handling	Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, spray, or aerosols.
Storage	Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and /or ignition. Keep container standing upright. Keep containers closed when not in use – check regularly for leaks.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits: No value assigned for this specific material by Safe Work Australia.

Biological Limit Values: As per the “National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)” the ingredients in this material do not have a Biological Limit Allocated.

National occupational exposure limits: Natural ventilation should be adequate under normal use conditions.

Personal Protection Equipment: SAFETY SHOES, GLOVES, SAFETY GLASSES

Personal protective equipment (PPE) must be suitable for the nature of the work and any hazard associated with the work as identified by the risk assessment conducted.

Wear safety shoes, gloves, safety glasses. Available information suggests that gloves made from nitrile rubber, polyvinyl chloride (PVC) should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

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Hygiene measures: Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and repeated or prolonged skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Colour	Black
Odour	Paint
Solubility in water	No Data Available
Specific Gravity (20°C)	1.00-1.30
Vapour Pressure (20°C)	2.37kPa @ 20C
Auto-ignition temperature (°C)	Product is not self-igniting
Boiling Point/Range (°C)	100
pH	9.3-10.1
Total VOC (g/Litre)	85
Explosive properties	Product is not explosive

(Typical values only- consult specification sheet N Av = Not available, N App = Not applicable)

SECTION 10 STABILITY & REACTIVITY

Chemical stability	This material is thermally stable when stored and used as directed.
Conditions to avoid	Elevated temperatures and sources of ignition.
Incompatible materials	Oxidising Agents
Hazardous decomposition products	None known.
Hazardous reactions	No known hazardous reactions.

SECTION 11 TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effect that may arise if the product is mishandled and overexposure occurs are:

Acute Effects	
Inhalation	Not normally a hazard due to non-volatile nature of product. The material has NOT been classified by as "harmful by inhalation". However, care should be taken nevertheless to ensure exposure is kept to a minimum and that suitable control measures be used, in an occupational setting to control vapours, fumes and aerosols.
Skin Contact	Contact with skin may result in irritation. The material may accentuate any pre-existing dermatitis condition. Open cuts, abraded or irritated skin should not be exposed to this material.
Ingestion	The material has NOT been classified as "harmful by ingestion". However, the material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident. Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.
Eye Contact	Limited evidence or practical experience suggests that the material may cause eye irritation in a substantial number of individuals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis) and/or temporary impairment of vision.

Acute toxicity

Inhalation: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients) :>20 mg/L

Skin contact: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg bw.

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Ingestion: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients) :>2,000 mg/Kg bw.

Sensitisation: Inhalation: this material has not been classified as a respiratory sensitiser. Skin: this material has not been classified as a skin sensitiser.

Aspiration hazard: This material has been classified as non-hazardous.

Specific target organ toxicity (single exposure): This material has been classified as non-hazardous.

Chronic Toxicity

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

Reproductive toxicity (including via lactation): This material has been classified as non-hazardous.

Specific target organ toxicity (repeat exposure): This material has been classified as non-hazardous.

SECTION 12 ECOLOGICAL INFORMATION

Avoid contamination waterways.

Acute aquatic hazard: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >100 mg/L.

Long-term aquatic hazard: This material has been classified as non-hazardous. Chronic toxicity estimate (based on ingredients): >100 mg/L.

Ecotoxicity: No information available.

Persistence and degradability: No information available.

Bioaccumulative potential: No information available.

Mobility: No information available.

SECTION 13 DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

SECTION 14 TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

MARINE TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

AIR TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

HARMONISED SYSTEM (HS) CODE: 32091000

SECTION 15 REGULATORY INFORMATION

This material/constituent(s) is covered by the following requirements:

All components of this product are listed on or exempt from the Australian Inventory of Chemical Substances (AICS).

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RoHS Compliance: Product is RoHS compliant to EU RoHS Directive (EU) 2015/863 amending Annex II to directive 2011/65/EU – Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP).

SECTION 16 OTHER INFORMATION

Reasons for issue: Revised according to GHS7 criteria.

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.

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