
1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name INDURAGUARD BG
Synonyms INDURAGUARD • Q-2901 - PRODUCT CODE

1.2 Uses and uses advised against

Uses COATING • PAINT

1.3 Details of the supplier of the product

Supplier name THE ENERGY NETWORK (AUST) PTY LTD
Address 2B / 605 Zillmere Road, Zillmere, QLD, 4034, AUSTRALIA
Telephone (07) 3212 8999
Fax (07) 3212 8998
Email sales@tengroup.com.au
Website <http://www.tengroup.com.au>

1.4 Emergency telephone numbers

Poison Information Centre 13 11 26

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

Physical Hazards

Flammable Liquids: Category 2

Health Hazards

Skin Corrosion/Irritation: Category 2
Skin Sensitisation: Category 1
Serious Eye Damage / Eye Irritation: Category 2A
Acute Toxicity: Inhalation: Category 3
Respiratory Sensitisation: Category 1
Germ Cell Mutagenicity: Category 1B
Carcinogenicity: Category 2
Toxic to Reproduction: Category 1B

Environmental Hazards

Not classified as an Environmental Hazard

2.2 GHS Label elements

Signal word DANGER

Pictograms



PRODUCT NAME INDURAGUARD BG**Hazard statements**

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H340	May cause genetic defects.
H351	Suspected of causing cancer.
H360	May damage fertility or the unborn child.

Prevention statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P284	Wear respiratory protection.

Response statements

P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P311	Call a POISON CENTRE or doctor/physician.
P321	Specific treatment is advised - see first aid instructions.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P370 + P378	In case of fire: Use appropriate media to extinguish.

Storage statements

P403 + P233 + P235	Store in a well-ventilated place. Keep cool. Keep container tightly closed.
P405	Store locked up.

Disposal statements

P501	Dispose of contents/container in accordance with relevant regulations.
------	------------------------------------------------------------------------

2.3 Other hazards

No information provided.

3. COMPOSITION/ INFORMATION ON INGREDIENTS**3.1 Substances / Mixtures**

Ingredient	CAS Number	EC Number	Content
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC (<0.1% W/W BENZENE)	64742-95-6	265-199-0	5.25%
METHYL ISOBUTYL KETONE	108-10-1	203-550-1	4.7%
DIPHENYLMETHANE DIISOCYANATE (MDI)	101-68-8	202-966-0	2.69%
1,2,4-TRIMETHYLBENZENE	95-63-6	202-436-9	2.47%
4-CHLORO-A,A,A-TRIFLUOROTOLUENE	98-56-6	202-681-1	1.93%
TOLUENE SULPHONYL ISOCYANATE	4083-64-1	223-810-8	1.71%
XYLENE	1330-20-7	215-535-7	1.71%
ISOCYANIC ACID, POLYMETHYLENEPOLYPHENYLENE ESTER	9016-87-9	618-498-9	1.29%
CARBON BLACK	1333-86-4	215-609-9	0.67%

PRODUCT NAME INDURAGUARD BG

1,1'-METHYLENEBIS[ISOCYANATO] BENZENE (MDI ISOMER)	26447-40-5	247-714-0	0.54%
ETHYLBENZENE	100-41-4	202-849-4	0.54%
ADDITIVE(S)	-	-	Remainder
TALC	14807-96-6	238-877-9	9.05%

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye	If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
Inhalation	If inhaled, remove from contaminated area. To protect rescuer, use a Type A (Organic vapour) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.
Skin	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.
Ingestion	For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
First aid facilities	Eye wash facilities and safety shower should be available.

4.2 Most important symptoms and effects, both acute and delayed

Exposure to low concentrations of isocyanates may cause an allergic skin reaction as well as asthma-like symptoms, including tightness of the chest, coughing, wheezing and shortness of breath. Individuals with pre-existing respiratory impairment (eg asthmatics) or known sensitivities to isocyanates should avoid exposure.

4.3 Immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Dry agent, carbon dioxide or foam. Prevent contamination of drains and waterways.

5.2 Special hazards arising from the substance or mixture

Highly flammable. May evolve toxic gases (carbon/ nitrogen oxides, isocyanates, cyanides, hydrocarbons) when heated to decomposition. Vapour may form explosive mixtures with air. Eliminate all ignition sources including cigarettes, open flames, spark producing switches/tools, heaters, naked lights, pilot lights, mobile phones, etc when handling. Earth containers when dispensing fluids.

5.3 Advice for firefighters

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

5.4 Hazchem code

- 3YE
- 3 Alcohol Resistant Foam is the preferred firefighting medium but, if it is not available, normal foam can be used.
- Y Risk of violent reaction or explosion. Wear full fire kit and breathing apparatus. Contain spill and run-off.
- E Evacuation of people in and around the immediate vicinity of the incident should be considered.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.

6.2 Environmental precautions

Prevent product from entering drains and waterways.

6.3 Methods of cleaning up

Contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal. Eliminate all sources of ignition.

6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area, removed from incompatible substances, heat or ignition sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Large storage areas should have appropriate ventilation and fire protection systems. Store between 4°C and 35°C. Prevent from freezing. Do not store above 49°C.

7.3 Specific end uses

No information provided.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
1,2,4-Trimethylbenzene (as Trimethyl benzene)	SWA [AUS]	25	123	--	--
Carbon black	SWA [AUS]	--	3	--	--
Ethyl benzene	SWA [AUS]	100	434	125	543
Ethyl benzene	SWA [Proposed]	20	87	--	--
Isocyanates, (pol-) (as-NCO)	SWA [Proposed]	--	0.0001	--	--
Isocyanates, all (as-NCO)	SWA [AUS]	--	0.02	--	0.07
Methyl isobutyl ketone	SWA [AUS]	50	205	75	307
Mineral spirits	SWA [Proposed]	50	295	100	593
Talc (no asbestos fibres)	SWA [AUS]	--	2.5	--	--
Talc, (containing no asbestos fibres)	SWA [Proposed]	--	2	--	--
Trimethylbenzene (all isomers)	SWA [Proposed]	20	100	--	--
Xylene	SWA [AUS]	80	350	150	655

Biological limits

Ingredient	Reference	Determinant	Sampling Time	BEI
ETHYLBENZENE	ACGIH BEI	Sum of mandelic acid and phenylglyoxylic acid in urine	End of shift	0.15 g/g creatinine
METHYL ISOBUTYL KETONE	ACGIH BEI	Methyl isobutyl ketone in urine	End of shift	1 mg/L
XYLENE	ACGIH BEI	Methylhippuric acids in urine	End of shift	1.5 g/g creatinine

8.2 Exposure controls

Engineering controls

Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. Flammable/explosive vapours may accumulate in poorly ventilated areas. Vapours are heavier than air and may travel some distance to an ignition source and flash back. Maintain vapour levels below the recommended exposure standard.

PRODUCT NAME INDURAGUARD BG

PPE

Eye / Face	Wear splash-proof goggles.
Hands	Wear PVA or Viton® gloves.
Body	Wear coveralls. If spraying, wear impervious coveralls.
Respiratory	Wear a Type A (organic vapour) / Organic vapour respirator. If sanding dry product, wear a Class P1 (particulate) / N95 respirator. If spraying, with prolonged use, or if in confined areas, wear an Air-line / Full Facepiece Supplied-Air Respirator (SAR).



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	LIQUID
Odour	CHARACTERISTIC ODOUR
Flammability	HIGHLY FLAMMABLE
Flash point	16°C
Boiling point	137°C
Melting point	NOT AVAILABLE
Evaporation rate	NOT AVAILABLE
pH	NOT AVAILABLE
Vapour density	NOT AVAILABLE
Relative density	NOT AVAILABLE
Solubility (water)	NOT AVAILABLE
Vapour pressure	NOT AVAILABLE
Upper explosion limit	8.0 %
Lower explosion limit	1.0 %
Partition coefficient	NOT AVAILABLE
Autoignition temperature	NOT AVAILABLE
Decomposition temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
Odour threshold	NOT AVAILABLE

9.2 Other information

Density	18.42 g/cm ³
VOC	1.93 lbs/gal

10. STABILITY AND REACTIVITY

10.1 Reactivity

Carefully review all information provided in sections 10.2 to 10.6.

10.2 Chemical stability

Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions

Hazardous polymerisation is not expected to occur.

10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources. Avoid exposure to moisture.

10.5 Incompatible materials

Incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), alcohols, amines, heat and ignition sources. Reacts with water or moisture, generating carbon dioxide, which may cause container rupture.

10.6 Hazardous decomposition products

May evolve toxic gases (carbon/ nitrogen oxides, isocyanates, cyanides, hydrocarbons) when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity Toxic if inhaled. Acute exposure may result in nausea, vomiting, abdominal pain, diarrhoea, dizziness and drowsiness.

Information available for the ingredients:

Ingredient	Oral LD50	Dermal LD50	Inhalation LC50
SOLVENT NAPHTHA (PETROLEUM), LIGHT AROMATIC (<0.1% W/W BENZENE)	> 5000 mg/kg (OECD TG 401)	> 2000 mg/kg (OECD TG 402)	> 5610 mg/m ³ (OECD TG 403)
METHYL ISOBUTYL KETONE	1600 mg/kg (guinea pig); 2080 mg/kg (rat)	> 20 mL/kg (rabbit)	100 mg/L (rat)
DIPHENYLMETHANE DIISOCYANATE (MDI)	2200 mg/kg (mouse)	--	178 mg/m ³ (rat)
1,2,4-TRIMETHYLBENZENE	6000 mg/kg (rat)	--	18 g/m ³ /4hrs (rat)
4-CHLORO-A,A,A-TRIFLUOROTOLUENE	13000 mg/kg (rat)	--	22000 mg/m ³ (rat)
TOLUENE SULPHONYL ISOCYANATE	2,234 mg/kg (rat)	--	--
XYLENE	> 2000 mg/kg (rat) (AICIS)	> 1700 mg/kg (rabbit)	20 mg/L/4h (rat) (AICIS)
ISOCYANIC ACID, POLYMETHYLENEPOLYPHENYLENE ESTER	> 2000 mg/kg (rat) (AICIS)	> 9400 mg/kg (rabbit) (AICIS)	0.49 mg/L/4 hours (rat) (AICIS) (dust/mist)
CARBON BLACK	> 10,000 mg/kg (rat)	--	--
1,1'-METHYLENEBIS[ISOCYANATO] BENZENE (MDI ISOMER)	--	--	0.49 mg/l (Rat)
ETHYLBENZENE	3500 mg/kg (rat)	17800 mg/kg (rabbit)	17.8 mg/l/4 hours (rat)
TALC	> 5000 mg/kg (rat)	--	--

Skin Contact may result in irritation, redness, rash and dermatitis.

Eye Contact may result in irritation, lacrimation, pain and redness.

Sensitisation Exposure to low concentrations of isocyanates may cause an allergic skin reaction as well as asthma-like symptoms, including tightness of the chest, coughing, wheezing and shortness of breath.

Mutagenicity The manufacturer reports that this product may cause genetic defects.

Carcinogenicity Suspected of causing cancer. Methyl isobutyl ketone is classified as a possible human carcinogen (IARC Group 2B). Ethylbenzene is classified as possibly carcinogenic to humans (IARC Group 2B).

Reproductive The manufacturer has classified this product as damaging fertility or the unborn child.

STOT - single exposure Over exposure may result in irritation of the nose and throat, coughing, nausea, dizziness and headache. High level exposure may result in breathing difficulties and unconsciousness.

STOT - repeated exposure Repeated exposure to isocyanates may damage the respiratory system resulting in irritation of the respiratory tract and lung tissue damage. Repeated exposure to some solvents have been reported to cause adverse effects to the central nervous system (CNS), liver and kidney.

Aspiration Aspiration into the lungs may result in chemical pneumonitis and pulmonary oedema.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

12.2 Persistence and degradability

No information provided.

12.3 Bioaccumulative potential

No information provided.

12.4 Mobility in soil

No information provided.

12.5 Other adverse effects

Avoid contamination of drains and waterways.

13. DISPOSAL CONSIDERATIONS

PRODUCT NAME INDURAGUARD BG**13.1 Waste treatment methods**

Waste disposal For small amounts, absorb with sand, vermiculite, or a similar material and dispose of in an approved landfill site. If the materials contain multiple components, mix ensuring protective equipment is worn during mixing, and do not seal containers until the reaction is complete. For larger quantities or if additional disposal information is required, contact the manufacturer/supplier. Prevent contamination of drains and waterways, as this may threaten aquatic life and cause environmental damage.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE



	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
14.1 UN Number	1263	1263	1263
14.2 Proper Shipping Name	PAINT	PAINT	PAINT
14.3 Transport hazard class	3	3	3
14.4 Packing Group	II	II	II

14.5 Environmental hazards

Not a Marine Pollutant.

14.6 Special precautions for user

Hazchem code ●3YE
GTEPG 3C1
EmS F-E, S-E

15. REGULATORY INFORMATION**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Poison schedule Classified as a Schedule 6 (S6) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classifications Safe Work Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals (GHS Revision 7).

Inventory listings **AUSTRALIA: AIC (Australian Inventory of Industrial Chemicals)**
 All components are listed on AIC, or are exempt.

16. OTHER INFORMATION

Additional information Spillage decontaminants for isocyanates: For TDI or HMDI, use a mixture of sawdust (20%), silica sand (or china clay or Fuller's Earth) (40%) and a breakdown solution (40%). The breakdown solution is made up of water (90%), non-ionic surfactant (2%) and concentrated ammonia (8% v/v). For spillage of any other isocyanate a solid absorbent of silica sand or sawdust may be used.

EPOXY - PHENOXY RESINS AND POLYURETHANES: Where spray painting with two or more component epoxy resins or polyurethane paints is undertaken, an employee shall wear a full face air-line respirator, full length chemically resistant coveralls and gloves. Further, if an individual is to enter an enclosed booth where a vapour or gas curing process is occurring, an air-line respirator is required. Once cured, these resins are considered non toxic.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as form of product, method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m ³	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

Report status

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

Prepared by

Risk Management Technologies
5 Ventnor Ave, West Perth
Western Australia 6005
Phone: +61 8 9322 1711
Fax: +61 8 9322 1794
Email: info@rmtglobal.com
Web: www.rmtglobal.com

[End of SDS]