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## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

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### 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 PTY LTD (TEN GROUP)  
**Address** 65 Wentworth Place, Banyo, Queensland, 4014, AUSTRALIA  
**Telephone** (07) 3212 8999  
**Fax** (07) 3212 8998  
**Email** [sales@tengroup.com.au](mailto:sales@tengroup.com.au)  
**Website** <http://www.tengroup.com.au>

### 1.4 Emergency telephone numbers

**Emergency** (07) 3212 8999

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## 2. HAZARDS IDENTIFICATION

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### 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 1B  
Toxic to Reproduction: Category 1B

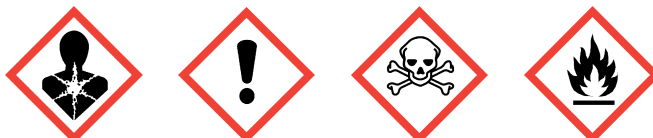
#### Environmental Hazards

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.
H350	May cause 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/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
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.
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.
P285	In case of inadequate ventilation wear respiratory protection.

**Response statements**

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 to fresh air and keep at rest in a position 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	Take off contaminated clothing and wash before re-use.
P370 + P378	In case of fire: Use appropriate media for extinction.

**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.
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**2.3 Other hazards**

No information provided.

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

Ingredient	CAS Number	EC Number	Content
ADDITIVE(S)	-	-	Remainder
TALC	14807-96-6	238-877-9	9.05%
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%

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4,4' DIPHENYLMETHANEDIISOCYANATE, ISOMERE, HOMOLOGUE AND MIXTURES	9016-87-9	618-498-9	1.29%
CARBON BLACK	1333-86-4	215-609-9	0.67%
1,1'-METHYLENEBIS[ISOCYANATO] BENZENE (MDI ISOMER)	26447-40-5	247-714-0	0.54%
ETHYLBENZENE	100-41-4	202-849-4	0.54%

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**4. FIRST AID MEASURES****4.1 Description of first aid measures**

<b>Eye</b>	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.
<b>Inhalation</b>	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.
<b>Skin</b>	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.
<b>Ingestion</b>	For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
<b>First aid facilities</b>	Eye wash facilities and safety shower should be available.

**4.2 Most important symptoms and effects, both acute and delayed**

May cause sensitisation by inhalation and skin contact. 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.

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**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, pilot lights, heaters, naked lights, 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.

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**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 <sup>3</sup>	ppm	mg/m <sup>3</sup>
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
Talc (no asbestos fibres)	SWA [AUS]	--	2.5	--	--
Xylene	SWA [AUS]	80	--	150	--

#### Biological limits

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

Reference: ACGIH Biological Exposure Indices

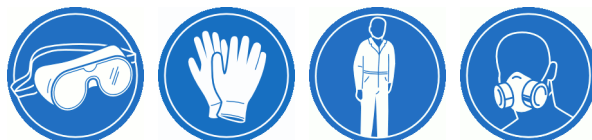
### 8.2 Exposure controls

#### 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.

#### 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) respirator. If spraying, wear an Air-line respirator.



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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### 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 <sup>3</sup>
VOC	1.93 lbs/gal

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## 10. STABILITY AND REACTIVITY

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### 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

Polymerization 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.

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## 11. TOXICOLOGICAL INFORMATION

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### 11.1 Information on toxicological effects

Acute toxicity Toxic if inhaled.

**Information available for the ingredients:**

<b>Ingredient</b>	<b>Oral LD50</b>	<b>Dermal LD50</b>	<b>Inhalation LC50</b>
TALC	> 5000 mg/kg (rat)	--	--
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 <sup>3</sup> (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 <sup>3</sup> (rat)
1,2,4-TRIMETHYLBENZENE	6000 mg/kg (rat)	--	18 g/m <sup>3</sup> /4hrs (rat)
4-CHLORO-A,A,A-TRIFLUOROTOLUENE	13000 mg/kg (rat)	--	22000 mg/m <sup>3</sup> (rat)
TOLUENE SULPHONYL ISOCYANATE	2,234 mg/kg (rat)	--	--
XYLENE	> 2000 mg/kg (rat) (AICIS)	> 1700 mg/kg (rabbit)	5000 ppm (rat)
4,4' DIPHENYLMETHANEDIISOCYANATE, ISOMERE, HOMOLOGE AND MIXTURES	> 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)	50 g/m <sup>3</sup> /2 hours (mouse)

<b>Skin</b>	Irritating to the skin. Contact may result in irritation, redness, rash and dermatitis.
<b>Eye</b>	Irritating to the eyes. Contact may result in irritation, lacrimation, pain, redness and conjunctivitis.
<b>Sensitisation</b>	May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Exposure to low concentrations of isocyanates may cause asthma-like symptoms, including tightness of the chest, coughing, wheezing and shortness of breath.
<b>Mutagenicity</b>	May cause genetic defects.
<b>Carcinogenicity</b>	May cause cancer.
<b>Reproductive</b>	May damage fertility or the unborn child.
<b>STOT - single exposure</b>	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.
<b>STOT - repeated exposure</b>	Repeated exposure 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.
<b>Aspiration</b>	Aspiration into the lungs may result in chemical pneumonitis and pulmonary oedema.

**12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

No information provided.

**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**

SOIL: If aromatic hydrocarbons are released to soil, they will evaporate from near-surface soil & leach to groundwater. WATER: Biodegradation of aromatics occurs both in soil & groundwater but may be slow. Isocyanates will react with water producing carbon dioxide. ATMOSPHERE: Aromatic hydrocarbons will exist largely as vapour. Half life in atmosphere varies, (eg 1-2 days (xylene); 3 hrs-1 day (toluene)).

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

<b>Waste disposal</b>	For small amounts, absorb with sand, vermiculite or similar and dispose of to an approved landfill site. Contact the manufacturer/supplier for additional information if disposing of large quantities (if required). Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.
<b>Legislation</b>	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)
<b>14.1 UN Number</b>	1263	1263	1263
<b>14.2 Proper Shipping Name</b>	PAINT	PAINT	PAINT
<b>14.3 Transport hazard class</b>	3	3	3
<b>14.4 Packing Group</b>	II	II	II

### 14.5 Environmental hazards

Not a Marine Pollutant.

### 14.6 Special precautions for user

<b>Hazchem code</b>	●3YE
<b>GTEPG</b>	3C1
<b>EmS</b>	F-E, S-E

## 15. REGULATORY INFORMATION

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

<b>Poison schedule</b>	Classified as a Schedule 6 (S6) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
<b>Classifications</b>	Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.
<b>Inventory listings</b>	<b>AUSTRALIA: AIIC (Australian Inventory of Industrial Chemicals)</b> All components are listed on AIIC, or are exempt.

## 16. OTHER INFORMATION

**Additional information** RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

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.

**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 <sup>3</sup>	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.

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