

SAFETY DATA SHEET

INSTAPAK® QUICK RT® COMPONENT "A"

Section 1. Identification

Product identifier : INSTAPAK® QUICK RT® COMPONENT "A"

Product code : Not available.

Other means of identification : Not available.

Product type : Liquid.

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

Product use : Polymethylene Polyphenylisocyanate (PMDI) mixture for the production of Instapak® polyurethane packaging foam.

Area of application : Industrial applications.

Manufacturer : Sealed Air Pty Ltd
A.B.N. 65 004 207 532
1126 Sydney Road,
Fawkner VIC 3060
Australia

Telephone: +61 3 9358 2244

e-mail address of person responsible for this SDS : Sealedair.com

Emergency telephone number (with hours of operation) : Chemtrec: +61 290372994 (24/7)

Section 2. Hazard(s) identification

Classification of the substance or mixture :

H332	ACUTE TOXICITY (inhalation) - Category 4
H315	SKIN CORROSION/IRRITATION - Category 2
H320	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B
H334	RESPIRATORY SENSITISATION - Category 1
H317	SKIN SENSITISATION - Category 1
H335	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
H372	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1

GHS label elements

Hazard pictograms :



Signal word : DANGER

Section 2. Hazard(s) identification

Hazard statements : H315 + H320 - Causes skin and eye irritation.
 H317 - May cause an allergic skin reaction.
 H332 - Harmful if inhaled.
 H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H335 - May cause respiratory irritation.
 H372 - Causes damage to organs through prolonged or repeated exposure. (respiratory tract)

Precautionary statements

Prevention : P280 - Wear protective gloves.
 P284 - Wear respiratory protection.
 P260 - Do not breathe vapour.
 P270 - Do not eat, drink or smoke when using this product.
 P264 - Wash thoroughly after handling.

Response : P314 - Get medical advice/attention if you feel unwell.
 P304 + P340, P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
 P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
 P362 + P364 - Take off contaminated clothing and wash it before reuse.
 P302 + P352 - IF ON SKIN: Wash with plenty of water.
 P333 + P313 - If skin irritation or rash occurs: Get medical advice or 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 or attention.

Storage : P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Not applicable.

Other hazards which do not result in classification : Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

Section 3. Composition and ingredient information

Substance/mixture : Mixture

Other means of identification : Not available.

Ingredient name	% (w/w)	CAS number
4,4'-methylenediphenyl diisocyanate	≥30 - ≤60	101-68-8
Diphenylmethanediisocyanate, isomers and homologues	≥30 - ≤60	9016-87-9

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

The total concentration of ingredients in this product, reported or not in this section, is 100%.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In the event of any complaints or symptoms, avoid further exposure.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 15 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention following exposure or if feeling unwell. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes eye irritation.
- Inhalation** : Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Low oral toxicity. Ingestion may cause irritation of the gastrointestinal tract.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
wheezing and breathing difficulties
asthma
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

Section 4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

- Suitable extinguishing media** : In case of fire, use water spray (fog), foam, dry chemical or CO₂.
- Unsuitable extinguishing media** : Do not use water jet.
- Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
hydrogen cyanide
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Section 6. Accidental release measures

Methods and material for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitisation problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.


- Conditions for safe storage, including any incompatibilities** : Store between the following temperatures: 18 to 30°C (64.4 to 86°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

Section 8. Exposure controls and personal protection

Ingredient name	Exposure limits
<p> 4,4'-methylenediphenyl diisocyanate</p> <p>Diphenylmethanediisocyanate, isomers and homologues</p>	<p>Safe Work Australia (Australia, 12/2019). Skin sensitiser. STEL: 0.07 mg/m³, (as -NCO) 15 minutes. TWA: 0.02 mg/m³, (as -NCO) 8 hours.</p> <p>Safe Work Australia (Australia, 12/2019). Skin sensitiser. STEL: 0.07 mg/m³, (as -NCO) 15 minutes. TWA: 0.02 mg/m³, (as -NCO) 8 hours.</p>

Biological exposure indices

None known.

Appropriate engineering controls

- : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection

- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
 Recommended: neoprene rubber, butyl rubber, polyvinyl chloride (PVC) or nitrile rubber.

Body protection

- : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

- : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Section 8. Exposure controls and personal protection

- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

- Physical state** : Liquid.
- Colour** : Brown. [Dark]
- Odour** : Musty.
- Odour threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : 208°C (406.4°F)
- Flash point** : Closed cup: 148.9°C (300°F) [Pensky-Martens]
- Evaporation rate** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit/flammability limit** : Not available.
- Vapour pressure** : ☒ 0.000013 kPa (<0.0001 mm Hg)
- Relative vapour density** : Not available.
- Relative density** : 1.24
- Density** : 1.24 g/cm³ [25°C (77°F)]
- Solubility(ies)** :

Media	Result
<input checked="" type="checkbox"/> cold water	Not soluble
<input checked="" type="checkbox"/> hot water	Not soluble

- Miscible with water** : ☒ No.
- Partition coefficient: n-octanol/water** : ☒ Not applicable.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not available.
- Flow time (ISO 2431)** : Not available.
- Particle characteristics**
- Median particle size** : ☒ Not applicable.

Other information

- Physical/chemical properties comments** : No additional information.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : Stable under normal conditions of use and storage. Polymerises at about 200°C with evolution of carbon dioxide.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur. Uncontrolled exothermic reactions occur with amines and alcohols. The product reacts slowly with water, resulting in the production of carbon dioxide. In closed containers, pressure build-up could result in distortion, expansion and, in extreme cases, bursting of the container.
Under normal conditions of storage and use, hazardous polymerisation will not occur.

Conditions to avoid : Avoid high temperature and moisture.

Incompatible materials : Reactive or incompatible with the following materials: Water, amines, strong bases, alcohols, copper alloys.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
4,4'-methylenediphenyl diisocyanate	LC50 Inhalation Dusts and mists	Rat - Male	0.368 mg/l	4 hours
	LD50 Dermal	Rabbit - Male, Female	>9400 mg/kg (similar material)	-
	LD50 Oral	Rat - Male, Female	>7616 mg/kg	-
Diphenylmethanediisocyanate, isomers and homologues	LC50 Inhalation Dusts and mists	Rat	490 mg/m ³	4 hours
	LD50 Dermal	Rabbit - Male, Female	>9400 mg/kg	-
	LD50 Oral	Rat - Male, Female	>2000 mg/kg	-

Conclusion/Summary : Not available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
4,4'-methylenediphenyl diisocyanate	Eyes - Irritant	Human	-	-	-
	Eyes - Moderate irritant	Rabbit	-	100 mg	-
Diphenylmethanediisocyanate, isomers and homologues	Skin - Mild irritant	Rabbit	-	-	-
	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Skin - Mild irritant	Rabbit	-	-	-

Section 11. Toxicological information

Conclusion/Summary

Skin : Not available.
Eyes : Not available.
Respiratory : Not available.

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
4,4'-methylenediphenyl diisocyanate	Respiratory	Guinea pig	Sensitising
	skin	Mouse	Sensitising

Conclusion/Summary

Skin : "Diphenylmethanediisocyanate, isomers and homologues" and "Formaldehyde, oligomeric reaction products with aniline and phosgene": May cause skin sensitisation.

Respiratory : "Diphenylmethanediisocyanate, isomers and homologues" and "Formaldehyde, oligomeric reaction products with aniline and phosgene": May cause sensitisation by inhalation.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
4,4'-methylenediphenyl diisocyanate	Ames test, Salmonella typhimurium	Experiment: In vitro Subject: Bacteria	Equivocal
	Micronucleus test, rat, male	Experiment: In vivo Subject: Mammalian-Animal	Negative
	Micronucleus Assay, Mouse	Experiment: In vivo Subject: Mammalian-Animal	Negative
	Gene mutation assay, Salmonella typhimurium	Experiment: In vitro Subject: Bacteria	Negative
Diphenylmethanediisocyanate, isomers and homologues			

Conclusion/Summary : Not available.

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Diphenylmethanediisocyanate, isomers and homologues	Positive - Inhalation - TC	Rat - Male, Female	6 mg/m ³ LOAEL	2 years; 6 hours per day ; 5 days per week

Conclusion/Summary : Polymeric MDI has been classified as IARC Group 3 ("Not classifiable as to its carcinogenicity to humans") (1999) indicating there is inadequate evidence available to describe the carcinogenic potential. Epidemiological studies found no association between isocyanates and cancer. In chronic exposure studies in rodents, PMDI produced tumors only at the highest exposure level of 6 mg/m³. This exposure level is significantly above the TLV for MDI (0.051 mg/m³). Based on the weight of the evidence, a determination of not classified for carcinogenicity is justified.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
Diphenylmethanediisocyanate, isomers and homologues	Positive	-	-	Rat - Female	Inhalation: 4 mg/m ³ NOAEL	15 days; 6 hours per day

Conclusion/Summary : Not available.

Section 11. Toxicological information

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Diphenylmethanediisocyanate, isomers and homologues	Negative - Inhalation	Rat - Female	12 mg/m ³ NOAEL	15 days; 6 hours per day

Conclusion/Summary : No Teratogenic effects observed at doses tested. Fetotoxicity seen only with maternal toxicity.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
4,4'-methylenediphenyl diisocyanate	Category 3	-	Respiratory tract irritation
Diphenylmethanediisocyanate, isomers and homologues	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
4,4'-methylenediphenyl diisocyanate	Category 1	inhalation	respiratory tract
Diphenylmethanediisocyanate, isomers and homologues	Category 1	inhalation	respiratory tract

Aspiration hazard

Not available.

Information on likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact : Causes eye irritation.

Inhalation : Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : Low oral toxicity. Ingestion may cause irritation of the gastrointestinal tract.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
wheezing and breathing difficulties
asthma

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

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Section 11. Toxicological information

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
4,4'-methylenediphenyl diisocyanate	Chronic NOAEL Inhalation Dusts and mists	Rat - Male, Female	0.3 mg/m ³	90 days; 18 hours per day , 5 days per week
Diphenylmethanediisocyanate, isomers and homologues	Chronic NOAEL Inhalation Dusts and mists	Rat - Male, Female	0.2 mg/m ³	2 years; 6 hours per day ; 5 days per week
	Chronic NOAEL Inhalation Dusts and mists	Rat - Male, Female	1 mg/m ³	90 days; 6 hours per day ; 5 days per week

Conclusion/Summary : No known significant effects or critical hazards.

General : Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
INSTAPAK QUICK RT COMPONENT "A"	N/A	N/A	N/A	N/A	1.7
4,4'-methylenediphenyl diisocyanate	N/A	N/A	N/A	N/A	1.5
Diphenylmethanediisocyanate, isomers and homologues	N/A	N/A	N/A	N/A	1.5

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
4,4'-methylenediphenyl diisocyanate	Acute LC50 >500 mg/l	Daphnia - Water flea	24 hours
Diphenylmethanediisocyanate, isomers and homologues	Acute LC50 >500 mg/l	Fish - Zebra fish	24 hours
	EC50 >100 mg/l	Micro-organism	3 hours
	Acute EC50 >1000 mg/l	Daphnia - Daphnia magna	24 hours
	Acute LC50 >1000 mg/l	Fish - Danio rerio	96 hours
	Acute LC50 >3000 mg/l	Fish - Oryzias latipes	96 hours
	Acute NOEC 1640 mg/l	Algae - scenedesmus subspicatus	72 hours

Conclusion/Summary : No known significant effects or critical hazards. Not applicable.

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Diphenylmethanediisocyanate, isomers and homologues	-	0 % - 28 days	-	-

Conclusion/Summary : The product reacts slowly with water, resulting in the production of carbon dioxide. In closed containers, pressure build-up could result in distortion, expansion and, in extreme cases, bursting of the container.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Diphenylmethanediisocyanate, isomers and homologues	-	-	Not readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
4,4'-methylenediphenyl diisocyanate	4.51	200	low
Diphenylmethanediisocyanate, isomers and homologues	-	<1	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its

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Section 13. Disposal considerations

container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	ADG	ADR/RID	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

Standard for the Uniform Scheduling of Medicines and Poisons

Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

Australia inventory (AIIC) : All components are listed or exempted.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Section 15. Regulatory information

Not listed.

Section 16. Any other relevant information

Other special considerations : All Rights reserved.
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History

Date of issue/Date of revision : 22/12/2022
Date of previous issue : 19/10/2020
Version : 2
Prepared by : Sphera Solutions
Key to abbreviations : ADG = Australian Dangerous Goods
 ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
 ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 SUSMP = Standard Uniform Schedule of Medicine and Poisons
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
ACUTE TOXICITY (inhalation) - Category 4	Calculation method
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2B	Calculation method
RESPIRATORY SENSITISATION - Category 1	Calculation method
SKIN SENSITISATION - Category 1	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1	Calculation method

References : Work Health and Safety Regulations 2011, as amended
 Preparation of Safety Data Sheets for Hazardous Chemicals, Code of Practice, Safe Work Australia
 Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG), National Transport Commission

Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Any other relevant information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.