

SAFETY DATA SHEET

Instapak Quick® RT A

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

1.1 Product identifier

Product name	: Instapak Quick® RT A
Product description	: Liquid polyurethane resin mixture for the production of Instapak® polyurethane packaging foam.
Product type	: Liquid.
Other means of identification	: Not available.

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

Product use	: Liquid polyurethane resin mixture for the production of Instapak® polyurethane packaging foam.
Area of application	: Industrial applications.

1.3 Details of the supplier of the safety data sheet

Sealed Air B.V.
Lindhoutseweg 45
6545 AH Nijmegen,
Nederland
Tel.: +31 (0)24 3710111

To contact Sealed Air with your Environmental, Health and Safety questions please either:

e-mail address of person responsible for this SDS : EHSinstapak@sealedair.com

National contact

Sealed Air Limited,
Telford Way, Kettering, Northants NN16 8UN England,
Telephone: 01536 315700
Fax: 01536 410576

1.4 Emergency telephone number

Supplier

Telephone number : +31(0) 24 37 10 164 (9.00 - 17.00 CET)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Carc. Cat. 3; R40
Xn; R20, R48/20
Xi; R36/37/38
R42/43

Human health hazards : Limited evidence of a carcinogenic effect. Harmful by inhalation. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Irritating to eyes, respiratory system and skin. May cause sensitisation by inhalation and skin contact.

See section 16 for the full text of the R-phrases declared above

See Section 11 for more detailed information on health effects and symptoms.

SECTION 2: Hazards identification**2.2 Label elements**

Hazard symbol or symbols	: 
Indication of danger	: Harmful
Risk phrases	: R40- Limited evidence of a carcinogenic effect. R20- Harmful by inhalation. R48/20- Harmful: danger of serious damage to health by prolonged exposure through inhalation. R36/37/38- Irritating to eyes, respiratory system and skin. R42/43- May cause sensitisation by inhalation and skin contact.
Safety phrases	: S23- Do not breathe vapour. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28- After contact with skin, wash immediately with plenty of soap and water. S37/39- Wear suitable gloves and eye/face protection. S38- In case of insufficient ventilation, wear suitable respiratory equipment. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Hazardous ingredients	: Polymethylenepolyphenyl isocyanate Formaldehyde, oligomeric reaction products with aniline and phosgene
Supplemental label elements	: Contains isocyanates. See information supplied by the manufacturer. This information is provided by the present Safety Data Sheet.

2.3 Other hazards

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.
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SECTION 3: Composition/information on ingredients

Substance/mixture : Mixture

Product/ingredient name	Identifiers	%	<u>Classification</u> 67/548/EEC	Type
Diphenylmethanediisocyanate, isomers and homologues	CAS: 9016-87-9	50-75	Carc. Cat. 3; R40 Xn; R20, R48/20 Xi; R36/37/38 R42/43	[1] [2]
Formaldehyde, oligomeric reaction products with aniline and phosgene	EC: 500-079-6 CAS: 32055-14-4	35-50	Carc. Cat. 3; R40 Xn; R20, R48/20 Xi; R36/37/38 R42/43 See section 16 for the full text of the R-phrases declared above	[1]

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

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

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

SECTION 4: First aid measures

4.1 Description of 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 10 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 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 contaminated skin with 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 10 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. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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. 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.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- Eye contact** : Irritating to eyes.
- Inhalation** : This product is a respiratory irritant and potential respiratory sensitizer: repeated inhalation of vapour or aerosol at levels above the occupational exposure limit could cause respiratory sensitisation. Symptoms may include irritation to the eyes, nose, throat and lungs, possibly combined with dryness of the throat, tightness of chest and difficulty in breathing. The onset of the respiratory symptoms may be delayed for several hours after exposure. A hyper-reactive response to even minimal concentrations of MDI may develop in sensitised persons.
- Skin contact** : Irritating to skin. May cause sensitisation by skin contact. Animal studies have shown that respiratory sensitisation can be induced by skin contact with known respiratory sensitizers including diisocyanates. These results emphasize the need for protective clothing including gloves to be worn at all times when handling these chemicals or in maintenance work.
- Ingestion** : Low oral toxicity. Ingestion may cause irritation of the gastrointestinal tract.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
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

4.3 Indication of any immediate medical attention and special treatment needed

- 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.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : In case of fire, use water spray (fog), foam, dry chemical or CO₂.
- Unsuitable extinguishing media** : Do not allow water to enter container because a violent reaction may occur. Do not use water jet.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Hazardous combustion products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
hydrogen cyanide

5.3 Advice for firefighters

- Special precautions 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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 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 Section 8 for additional information on hygiene measures.

6.2 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).

6.3 Methods and materials 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.

SECTION 6: Accidental release measures

- 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.
- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

7.1 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 ingest. Avoid breathing vapour or mist. 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.

7.2 Conditions for safe storage, including any incompatibilities

- : 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. 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. Store between the following temperatures: 10°C and 40°C
Use original container.

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Diphenylmethanediisocyanate, isomers and homologues	EH40/2005 WELs (United Kingdom (UK), 8/2007). Skin sensitiser. Notes: as NCO STEL: 0.07 mg/m ³ , (as NCO) 15 minute(s). TWA: 0.02 mg/m ³ , (as NCO) 8 hour(s).

SECTION 8: Exposure controls/personal protection

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Derived effect levels

No DELs available.

Predicted effect concentrations

No PECs available.

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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. 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 or dusts.

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. <1 hours (breakthrough time): nitrile rubber, neoprene, butyl rubber, PVC, Viton®
Short term exposure Hand protection, gloves breakthrough time >30 min: butyl rubber, neoprene, Nitrile gloves., Viton®.

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.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.
Colour : Brown. [Dark]
Odour : Earthy (ordor)
Odour threshold : Not available.
pH : Not available.

SECTION 9: Physical and chemical properties

Melting point/freezing point	: -36°C (Pour point) ISO 3016
Initial boiling point and boiling range	: >300°C DIN 53171
Flash point	: Closed cup: 212°C DIN EN 22719
Evaporation rate	: Not available.
Flammability (solid, gas)	: Heat and open flames
Burning time	: Not applicable.
Burning rate	: Not applicable.
Upper/lower flammability or explosive limits	: Not available.
Vapour pressure	: 1.5 kPa [20°C] 2 kPa [50°C] EG A4 MDI < 0.00001 hPa at 20°C
Vapour density	: 8.5 [Air = 1]
Relative density	: 1.23 [Water = 1] at 20°C DIN 51757
Solubility(ies)	: Insoluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Dynamic: 40 to 70 mPa·s at 25°C DIN 53019
Explosive properties	: Not available.
Oxidising properties	: Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Stable under normal conditions. Polymerises at about 260°C with evolution of carbon dioxide.
10.3 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.
10.4 Conditions to avoid	: Avoid high temperature and moisture.
10.5 Incompatible materials	: Reactive or incompatible with the following materials: water, alcohols, oxidizing materials, amines, acids and alkalis.
10.6 Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
Diphenylmethanediisocyanate, isomers and homologues	LC50 Inhalation Dusts and mists	Rat - Male, Female	310 mg/m ³	4 hours
	LD50 Dermal	Rabbit - Male, Female	>9400 mg/kg	-
Formaldehyde, oligomeric reaction products with aniline and phosgene	LD50 Oral	Rat - Male	>10000 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	490 mg/m ³	4 hours
	LD50 Oral	Rat	>2000 mg/kg	-

Conclusion/Summary : Not available.**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
Formaldehyde, oligomeric reaction products with aniline and phosgene	Skin - Oedema	Rabbit	-	-	Irritating to skin.

Conclusion/Summary : Not available.**Sensitiser**

Product/ingredient name	Route of exposure	Species	Result
Polymethylenepolyphenyl isocyanate	skin	Guinea pig	Not sensitizing
	Respiratory	Rat	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
Diphenylmethanediisocyanate, isomers and homologues	OECD 474 Mammalian Erythrocyte Micronucleus Test	Subject: Mammalian-Animal	Negative
	-		Equivocal

Conclusion/Summary : Not available.**Carcinogenicity**

Product/ingredient name	Result	Species	Dose	Exposure
Diphenylmethanediisocyanate, isomers and homologues	Negative - Inhalation	Rat	-	2 years; 5 days per week
Formaldehyde, oligomeric reaction products with aniline and phosgene	Negative - Inhalation	Rat	-	2 years; 5 days per week

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

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
Polymethylenepolyphenyl isocyanate	-	-	-	Rat	Inhalation	-

Conclusion/Summary : Not available.

SECTION 11: Toxicological information**Teratogenicity**

Product/ingredient name	Result	Species	Dose	Exposure
Diphenylmethanediisocyanate, isomers and homologues	Negative - Inhalation	Rat - Male, Female	4 mg/m ³	-

Conclusion/Summary : Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Inhalation : This product is a respiratory irritant and potential respiratory sensitiser: repeated inhalation of vapour or aerosol at levels above the occupational exposure limit could cause respiratory sensitisation. Symptoms may include irritation to the eyes, nose, throat and lungs, possibly combined with dryness of the throat, tightness of chest and difficulty in breathing. The onset of the respiratory symptoms may be delayed for several hours after exposure. A hyper-reactive response to even minimal concentrations of MDI may develop in sensitised persons.

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

Skin contact : Irritating to skin. May cause sensitisation by skin contact. Animal studies have shown that respiratory sensitisation can be induced by skin contact with known respiratory sensitisers including diisocyanates. These results emphasize the need for protective clothing including gloves to be worn at all times when handling these chemicals or in maintenance work.

Eye contact : Irritating to eyes.

Symptoms related to the physical, chemical and toxicological characteristics

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

Ingestion : No specific data.

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

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

Delayed and immediate effects and also chronic effects from short and long term exposure**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
Polymethylenepolyphenyl isocyanate	Sub-acute NOEL Inhalation Dusts and mists	Rat	0.2 mg/m ³	2 years
Formaldehyde, oligomeric reaction products with aniline and phosgene	Sub-acute NOEL Inhalation Dusts and mists	Rat	0.2 mg/m ³	2 years

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

SECTION 11: Toxicological information

General	: Harmful: danger of serious damage to health by prolonged exposure through inhalation. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: Rats have been exposed for two years to a respirable aerosol of polymeric MDI which resulted in chronic pulmonary irritation at high concentrations. Only at the top level (6 mg/m ³), there was a significant incidence of a benign tumour of the lung (adenoma) and one malignant tumour (adenocarcinoma). There were no lung tumours at 1 mg/m ³ and no effects at 0.2 mg/m ³ . Overall, the tumour incidence, both benign and malignant, and the number of animals with the tumours were not different from controls. The increased incidence of lung tumours is associated with prolonged respiratory irritation and the concurrent accumulation of yellow material in the lung, which occurred throughout the study. In the absence of prolonged exposure to high concentrations leading to chronic irritation and lung damage, it is highly unlikely that tumour formation will occur.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No birth defects were seen in two independent animal (rat) studies. Fetotoxicity was observed at doses that were extremely toxic (including lethal) to the mother. Fetotoxicity was not observed at doses that were not maternally toxic. The doses used in these studies were maximal, respirable concentrations, which are well in excess of defined occupational exposure limits.
Fertility effects	: No known significant effects or critical hazards.
Other information	: Not available.

SECTION 12: Ecological information**12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
Diphenylmethanediisocyanate, isomers and homologues	Acute EC50 >1000 mg/l	Daphnia	24 hours Static
	Acute EC50 >100 mg/l	Micro-organism	3 hours Static
	Acute LC50 >1000 mg/l	Fish	96 hours Static
	Chronic EC50 >1640 mg/l	Algae	72 hours Static
	Chronic NOECr >10000 mg/l	Algae	112 days Static
	Chronic NOEC >10000 mg/l	Daphnia	112 days Static
	Chronic NOEC >10 mg/l	Daphnia	21 days Semi-Static
	Chronic NOEC >10000 mg/l	Fish	112 days Static
Formaldehyde, oligomeric reaction products with aniline and phosgene	EC50 >1000 mg/l	Daphnia - Daphnia magna	24 hours
	EC50 >100 mg/l LC0 >1000 mg/l	Micro-organism Fish - Danio rerio	3 hours 96 hours

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

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum

SECTION 12: Ecological information

Diphenylmethanediisocyanate, isomers and homologues	OECD 302C Inherent Biodegradability: Modified MITI Test (II)	0 % - 28 days	-	-
Formaldehyde, oligomeric reaction products with aniline and phosgene	OECD 302C Inherent Biodegradability: Modified MITI Test (II)	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
Polymethylenepolyphenyl isocyanate	Fresh water 0.8 days	-	Not readily
Formaldehyde, oligomeric reaction products with aniline and phosgene	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Polymethylenepolyphenyl isocyanate	-	200	high

12.4 Mobility in soil

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

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

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

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance.

13.1 Waste treatment methods**Product**

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its 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.

Hazardous waste : Yes.

European waste catalogue (EWC)

Date of issue/Date of revision : 14 June 2012

11/14

SECTION 13: Disposal considerations

Waste code	Waste designation
08 05 01*	waste isocyanates
16 03 05*	organic wastes containing dangerous substances
16 03 06	organic wastes other than those mentioned in 16 03 05

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its 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

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
14.6 Special precautions for user	Not available.	Not available.	Not available.	Not available.
Additional information	-	-	-	-

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****EU Regulation (EC) No. 1907/2006 (REACH)****Annex XIV - List of substances subject to authorisation****Substances of very high concern**

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

- Europe inventory** : All components are listed or exempted.
- Black List Chemicals** : Not listed
- Priority List Chemicals** : Not listed

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SECTION 15: Regulatory information

Integrated pollution prevention and control list (IPPC) - Air : Not listed

Integrated pollution prevention and control list (IPPC) - Water : Not listed

Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
Polymethylenepolyphenyl isocyanate	Carc. Cat. 3; R40	-	-	-
Formaldehyde, oligomeric reaction products with aniline and phosgene	Carc. Cat. 3; R40	-	-	-

International regulations

Chemical Weapons Convention List Schedule I Chemicals : Not listed

Chemical Weapons Convention List Schedule II Chemicals : Not listed

Chemical Weapons Convention List Schedule III Chemicals : Not listed

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Full text of abbreviated R phrases : R40- Limited evidence of a carcinogenic effect.
R20- Harmful by inhalation.
R48/20- Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R36/37/38- Irritating to eyes, respiratory system and skin.
R42/43- May cause sensitisation by inhalation and skin contact.

Full text of classifications [DSD/DPD] : Carc. Cat. 3 - Carcinogen category 3
Xn - Harmful
Xi - Irritant

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Notice to reader

SECTION 16: Other 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.