

## 1 Identification

- **Product identifier:** 2K-PUR COMP B, 327-47-025 (B), 327-47-055 (B), 327-47-105 (B), 2K COMP B
- **Trade name:** **KEMPEROL® 2K-PUR Waterproofing Component B**
- **Item number(s):** 2K-PUR COMP B, 327-47-025 (B), 327-47-055 (B), 327-47-105 (B), 2K COMP B
- **SDS Number:** 11
- **UPC bar code(s):** 12205 5, 12200 0, 12235 2
- **Application of the substance / the mixture** ROOF COATING
- **Manufacturer/Supplier:**  
 USA ADDRESS:  
 KEMPER SYSTEM AMERICA, INC.  
 1200 NORTH AMERICA DR,  
 WEST SENECA, NY 14224  
 PH (716) 558-2971  
  
 CANADIAN ADDRESS:  
 ASTARAS CANADA, INC.  
 4-7075 EDWARDS BLVD  
 MISSISSAUGA, ONTARIO, L5S 1Z2  
 PH (905) 624-5463
- **Information department:**  
 Tel: (716) 712-9931  
 www.kempersystem.net
- **Emergency telephone number:**  
 ChemTrec (800) 424-9300 / 1-(703)-741-5970  
 Canada only: CANUTEC (Call collect) (613) 996-6666

## 2 Hazard identification

- **Classification of the substance or mixture:**



GHS08 Health hazard

Respiratory Sensitizer - Category 1

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Specific Target Organ Toxicity - Repeated Exposure - Category 2  
 H373 May cause damage to the respiratory system through prolonged or repeated exposure.



GHS07

Acute Toxicity (Inhalation) - Category 4

H332 Harmful if inhaled.

Skin Irritation - Category 2

H315 Causes skin irritation.

Skin Sensitizer - Category 1

H317 May cause an allergic skin reaction.

Specific Target Organ Toxicity - Single Exposure - Category 3  
 H335 May cause respiratory irritation.

Eye Irritation - Category 2B

H320 Causes eye irritation.

- **Additional information:**

At temperatures up to 77°F (25°C), this product does not emit sufficient vapors to pose a respiratory hazard when used as directed. Above this temperature, concentrations may become hazardous in enclosed spaces. Ventilation using open windows, fans, or other means of creating airflow is typically a sufficient engineering control to maintain adequate ventilation at working temperatures.

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## according to HPR, Schedule 1

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Reviewed on 01/11/2022

**Trade name: KEMPEROL® 2K-PUR Waterproofing Component B**

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- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Signal word:** Danger

- **Hazard-determining components of labeling:**

4,4'-methylenediphenyl diisocyanate  
diphenylmethanediisocyanate, isomeres and homologues  
methylenediphenyl diisocyanate

- **Hazard statements:**

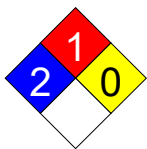
H332 Harmful if inhaled.  
H315+H320 Causes skin and eye irritation.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.  
H373 May cause damage to the respiratory system through prolonged or repeated exposure.

- **Precautionary statements:**

P260 Do not breathe mist/vapors/spray.  
P264 Wash thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
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.  
P302+P352 If on skin: Wash with plenty of soap and water.  
P304+P312 IF INHALED: Call a doctor if you feel unwell.  
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.  
P314 Get medical advice/attention if you feel unwell.  
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 doctor.  
P362+P364 Take off contaminated clothing and wash it before reuse.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Information pertaining to particular dangers for man and environment:**

- **NFPA ratings (scale 0 - 4):**



Health = 2  
Fire = 1  
Reactivity = 0

### 3 Composition/Information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

101-68-8	4,4'-methylenediphenyl diisocyanate	30-60% w/w *
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**Trade name:** KEMPEROL® 2K-PUR Waterproofing Component B

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9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	30-60% w/w *
26447-40-5	methylenediphenyl diisocyanate	5% w/w

\* Actual concentration ranges are withheld as a trade secret.

### 4 First-aid measures

- **General information:** Symptoms of poisoning may even occur after several hours.
- **After inhalation:**  
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor if you feel unwell or are experiencing respiratory symptoms.
- **After skin contact:**  
Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.
- **After eye contact:**  
Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If eye irritation persists get medical advice/attention.
- **After swallowing:** If swallowed, do not induce vomiting. Get medical attention right away.
- **Most important symptoms and effects, both acute and delayed:**  
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**  
No further relevant information available.

### 5 Fire-fighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture:**  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon monoxide (CO)
- **Protective equipment:** Wear self-contained respiratory protective device.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:** See below:
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections:**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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### 7 Handling and storage

- **Handling**
- **Precautions for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s):** No further relevant information available.

### 8 Exposure controls/ Personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:**

#### 101-68-8 4,4'-methylenediphenyl diisocyanate

EL (Canada)	Long-term value: 0.005 ppm Ceiling limit value: 0.01 ppm Skin; S(R)
EV (Canada)	Long-term value: 0.005 ppm Ceiling limit value: 0.02 ppm
PEL (USA)	Ceiling limit value: 0.2 mg/m <sup>3</sup> , 0.02 ppm
REL (USA)	Long-term value: 0.05 mg/m <sup>3</sup> , 0.005 ppm Ceiling limit value: 0.2* mg/m <sup>3</sup> , 0.02* ppm *10-min
TLV (USA)	Long-term value: 0.051 mg/m <sup>3</sup> , 0.005 ppm

#### 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

EL (Canada)	Long-term value: 0.005 ppm Ceiling limit value: 0.01 ppm S
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#### 26447-40-5 methylenediphenyl diisocyanate

EL (Canada)	Long-term value: 0.005 ppm Ceiling limit value: 0.01 ppm S
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- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Breathing equipment:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.  
Use suitable respiratory protective device in case of insufficient ventilation.

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· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Material of gloves:**

Nitrile rubber, NBR

Natural rubber, NR

· **Eye protection:**



Tightly sealed goggles

## 9 Physical and chemical properties

· <b>Form:</b>	Fluid
· <b>Color:</b>	According to product specification
· <b>Odor:</b>	Characteristic
· <b>Odor threshold:</b>	Not determined.
· <b>pH-value:</b>	Not determined.
· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	>350 °C
· <b>Flash point:</b>	>200 °C
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Ignition temperature:</b>	400 °C
· <b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Product is not selfigniting.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits</b>	
<b>Lower:</b>	0.4 Vol %
<b>Upper:</b>	0.0 Vol %
· <b>Vapor pressure:</b>	Not determined. Not applicable.
· <b>Density at 20 °C:</b>	1.24 g/cm <sup>3</sup>
· <b>Relative density:</b>	Not determined.
· <b>Vapor density:</b>	Not determined.
· <b>Evaporation rate:</b>	Not determined.
· <b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.

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- |                            |  |
|----------------------------|--|
| <b>· Viscosity:</b>        |  |
| <b>Dynamic:</b>            | Not determined.<br>Not applicable.         |
| <b>Kinematic:</b>          | Not determined.<br>Not applicable.         |
| <b>· Solvent content:</b>  |  |
| <b>VOC content:</b>        | 6 g/l                                      |
| <b>· Other information</b> | No further relevant information available. |

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions:**  
Reacts with alcohols, amines, aqueous acids and alkalis.  
Reacts with water.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

- **Information on toxicological effects:**
- **Acute toxicity**

- **LD/LC50 values that are relevant for classification:**

**101-68-8 4,4'-methylenediphenyl diisocyanate**

Oral	LD50	2,200 mg/kg (mouse)
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- **Specific symptoms in biological assay:** No further relevant information available.
- **Primary irritant effect**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:**  
Sensitization possible through inhalation.  
Sensitization possible through skin contact.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful  
Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

101-68-8	4,4'-methylenediphenyl diisocyanate	3
9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	3

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· **NTP (National Toxicology Program)**

None of the ingredients is listed.

## 12 Ecological information

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information**
- **General notes:**  
Water hazard class 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Other adverse effects:** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings**
- **Recommendation:**  
Place in a sealed container and label as waste. Place in a safe area, and comply with all federal, state, provincial and local regulations for disposal.

## 14 Transport information

- |   |                 |
|---|-----------------|
| · <b>UN-Number</b>  |                 |
| · <b>DOT/TDG, ADR, ADN, IMDG, IATA</b>  | Not regulated   |
| · <b>UN proper shipping name</b>  |                 |
| · <b>DOT/TDG, ADR, ADN, IMDG, IATA</b>  | Not regulated   |
| · <b>Transport hazard class(es)</b>   |                 |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>  |                 |
| · <b>Class</b>  | Not regulated   |
| · <b>Packing group</b>  |                 |
| · <b>DOT/TDG, ADR, IMDG, IATA</b>   | Not regulated   |
| · <b>Environmental hazards:</b>   |                 |
| · <b>Marine pollutant:</b>  | No              |
| · <b>Special precautions for user:</b>  | Not applicable. |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</b> | Not applicable. |

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· **UN "Model Regulation":** Not regulated

### 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
No further relevant information available.

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

101-68-8	4,4'-methylenediphenyl diisocyanate
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9016-87-9	diphenylmethanediisocyanate, isomeres and homologues
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· **TSCA (Toxic Substances Control Act):**

All ingredients are listed or exempted

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Canadian substance listings**

· **Canadian Domestic Substances List (DSL/NDSL):**

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%):**

101-68-8	4,4'-methylenediphenyl diisocyanate
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· **Canadian Ingredient Disclosure list (limit 1%):**

None of the ingredients is listed.

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

4,4'-methylenediphenyl diisocyanate  
diphenylmethanediisocyanate, isomeres and homologues  
methylenediphenyl diisocyanate

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**Trade name: KEMPEROL® 2K-PUR Waterproofing Component B**

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· **Hazard statements**

- H332 Harmful if inhaled.
- H315+H320 Causes skin and eye irritation.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H317 May cause an allergic skin reaction.
- H335 May cause respiratory irritation.
- H373 May cause damage to the respiratory system through prolonged or repeated exposure.

## 16 Other information

This SDS format meets ANSI Z400.1-2010, OSHA 1910.1200 and WHMIS requirements. Kemper System America, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Product use and conditions of use are beyond the control of Kemper System America, Inc. Warranty of materials is limited to test results of product performance as detailed in certificates of compliance. Interpretation of test results is the responsibility of end-user. No other warranties, expressed or implied, are made. Kemper System America, Inc is an ISO 9001:2015 and ISO 14001:2015 registered company.

- **Department issuing SDS:** Product safety department
- **Contact:** Stephen Nowicki
- **Date of the latest revision of the safety data sheet** 01/11/2022 / 4
- **Abbreviations and acronyms:**
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - VOC: Volatile Organic Compounds (USA, EU)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
- **\* Data compared to the previous version altered.**

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