Date of Preparation: 03/09/2017 Revision: 1.2 Reviewed on 04/25/2019

1 Identification

- · Product identifier
- · Trade name: TEK MAX MOISTURE BARRIER & PRIMER
- · Application of the substance / the mixture Primer/ Subcoating
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:

Teknoflor

1005 South 60th Street Milwaukee, WI 53214

Technical Support E-mail: technicaldept@teknoflor.com

Customer Service Phone: 800.522.9166

- · Information department: Product safety department.
- Emergency telephone number:

CHEMTREC 800-424-9300 • CHEMTREC International 703-527-3887 • Contract ID CCN794556

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carc. 2 H351 Suspected of causing cancer.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

- · Label elements
- · GHS label elements

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

· Hazard pictograms





GHS07

- · Signal word Danger
- Hazard-determining components of labeling:

diphenylmethane-4,4'-di-isocyanante, isomers

aromatic polyisocyanate

o-(p-isocyanatobenzyl)phenyl isocyanate

diphenylmethane-2,2'-diisocyanate

diphenylmethanediisocyanate,isomeres and homologues

· Hazard statements

Harmful if inhaled.

Causes skin irritation.

Causes serious eye irritation.

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

(Contd. on page 2)

US

TEKNOFLOR

Date of Preparation: 03/09/2017 Revision: 1.2 Reviewed on 09/19/2019

Trade name: TEK MAX - MOISTURE BARRIER & PRIMER

(Contd. of page 1)

May cause an allergic skin reaction.

Suspected of causing cancer.

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Do not breathe dust/fume/gas/mist/vapors/spray.

[In case of inadequate ventilation] wear respiratory protection.

Wear protective gloves/protective clothing/eye protection/face protection.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

Wash contaminated clothing before reuse.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

IF ON SKIN: Wash with plenty of water.

Take off contaminated clothing and wash it before reuse.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
- · NFPA ratings (scale 0 4)



· HMIS-ratings (scale 0 - 4)



- Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · **Description**: Adhesive

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Trade name: TEK MAX - MOISTURE BARRIER & PRIMER

(Contd. of page 2)

Dangerous components:

101-68-8 diphenylmethane-4,4'-di-isocyanante, isomers

25-<50%

♦ Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; ♦ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335

67815-87-6 aromatic polyisocyanate

25-<50%

♠ Resp. Sens. 1, H334; STOT RE 2, H373; ♠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Skin Sens. 1, H317; STOT SE 3, H335

5873-54-1 o-(p-isocyanatobenzyl)phenyl isocyanate

10<24%

Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335

2536-05-2 diphenylmethane-2,2'-diisocyanate

1-<5%

♠ Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; ♠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 24, H319; Skin Sens. 1, H317; STOT SE 3, H335

9016-87-9 diphenylmethanediisocyanate,isomeres and homologues

1.0-<5%

♦ Resp. Sens. 1, H334; STOT RE 2, H373; ♦ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335

4 First-aid measures

Description of first aid measures

General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Clean with water and soap. If possible, also wash with polyethylene glycol 400.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- · After swallowing: Do not induce vomiting; immediately call for medical help.
- Information for doctor:
- · 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

- Extinguishing media
- Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire fighting measures that suit the environment.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Nitrogen oxides (NOx)

Carbon monoxide (CO)

Hydrogen cyanide (HCN)

In certain fire conditions, traces of other toxic gases cannot be excluded.

- · Advice for firefighters
- · Protective equipment:

Do not inhale explosion gases or combustion gases.

Mouth respiratory protective device.

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Trade name: TEK MAX - MOISTURE BARRIER & PRIMER

(Contd. of page 3)

· Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations. Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Use respiratory protective device against the effects of fumes/dust/aerosol.

· 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.

7 Handling and storage

- Handling:
- Precautions for safe handling

Prevent formation of aerosols.

Ensure good ventilation/exhaustion at the workplace.

- Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
- Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep receptacle tightly sealed.

Protect from heat and direct sunlight.

· 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.
- · Control parameters
- Components with limit values that require monitoring at the workplace:

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

101-68-8 diphenylmethane-4,4'-di-isocyanante, isomers

PEL (USA) Ceiling limit value: 0.2 mg/m³, 0.02 ppm

REL (USA) Long-term value: 0.05 mg/m³, 0.005 ppm

Ceiling limit value: 0.2* mg/m³, 0.02* ppm

*10-min

TLV (USA) Long-term value: 0.051 mg/m³, 0.005 ppm

Additional information: The lists that were valid during the creation were used as basis.

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Trade name: TEK MAX - MOISTURE BARRIER & PRIMER

(Contd. of page 4)

- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

- Breathing equipment: Use suitable respiratory protective device in case of insufficient ventilation.
- Recommended filter device for short term use: Combination filter A-P2
- Protection of hands:



Protective gloves

Preventive skin protection by use of skin-protecting agents is recommended.

· Material of gloves

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.35 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Tightly sealed goggles

· **Body protection:** Protective work clothing

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Color:

· pH-value:

Fluid Blue

· Odor:

Characteristic
Not determined.

· Odor threshold:

Not determined.

Change in condition

Melting point/Melting range: Boiling point/Boiling range:

10 °C (50 °F) 351 °C (664 °F)

Flash point:

210 °C (410 °F)

· Flammability (solid, gaseous):

Not applicable.

· Ignition temperature:

520 °C (968 °F)

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Trade name: TEK MAX - MOISTURE BARRIER & PRIMER

(Contd. of page 5)

Decomposition temperature:

Not determined.

Auto igniting:

Product is not selfigniting.

Danger of explosion:

Product does not present an explosion hazard.

· Explosion limits:

Lower: Not determined.
Upper: Not determined.

Vapor pressure: Not determined.

Density at 20 °C (68 °F):

1.17 g/cm³ (9.764 lbs/gal) (EN ISO 2811-1)

Relative density
 Vapor density
 Evaporation rate
 Not determined.
 Not determined.

· Solubility in / Miscibility with

Water:

Hydrolized.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic at 20 °C (68 °F):

300 mPas (ISO 2555)

Kinematic:

Not determined.

Solvent content:

Water: VOC content:

0.0 % 0.0 %

0.07%

· Other information

No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- Chemical stability
- 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.
- · 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 diphenylmethane-4,4'-di-isocyanante, isomers

Oral

LD50 9200 mg/kg (rat)

Dermal | LD50 > 9400 mg

>9400 mg/kg (rabbit) (OECD RL 402)

Inhalative LC50

0.368 mg/l (rat)

67815-87-6 aromatic polyisocyanate

Oral

LD50 >5000 mg/kg (rat) (OECD RL 423)

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Trade name: TEK MAX - MOISTURE BARRIER & PRIMER

(Contd. of page 6)

5873-54-1 o-(p-isocyanatobenzyl) phenyl isocyanate

Oral LD50 >2000 mg/kg (rat) (RL 84/449/EWG, B.1)
Dermal LD50 >9400 mg/kg (rabbit) (OECD RL 402)

2536-05-2 diphenylmethane-2,2'-diisocyanate

Oral LD50 >15000 mg/kg (rat) Inhalative LC50/4h 370 mg/m³ (rat)

9016-87-9 diphenylmethanediisocyanate,isomeres and homologues

 Oral
 LD50
 >10000 mg/kg (rat) (OECD RL 401)

 Dermal
 LD50
 >9400 mg/kg (rabbit) (OECD RL 402)

Inhalative LC50 0.49 mg/l (rat)

LC50/4h 11 mg/l (rat) (OECD RL 403)

- · Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- on the eye: Irritating effect.
- Sensitization:

Sensitizing effect through inhalation is possible with prolonged exposure.

Sensitizing effect by skin contact is possible with prolonged exposure.

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

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

Carcinogenic categories

· IARC (International Agency for Research on Cancer)

9016-87-9 diphenylmethanediisocyanate,isomeres and homologues: 3

· NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- Aquatic toxicity:

101-68-8 diphenylmethane-4,4'-di-isocyanante, isomers

NOEC/21d >10 mg/l (Daphnia magna) (OECD RL 202)

 $LC50/96h > 1000 \ mg/l \ (Brachydanio \ rerio) \ (OECD \ RL \ 203)$

LC0/96h >1000 mg/l (Brachydanio rerio)

EC50/24h >1000 mg/l (Daphnia magna) (OECD RL 202)

EC50/3h >100 mg/l (sludge) (OECD RL 209)

EC50/72h 1640 mg/l (Desmodesmus subspicatus) (OECD RL 201)

IC50/48h >100 mg/l (Escherichia coli)

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Trade name: TEK MAX - MOISTURE BARRIER & PRIMER

(Contd. of page 7)

67815-87-6 aromatic polyisocyanate

EC50/3h >1000 mg/l (sludge) (OECD RL209)

5873-54-1 o-(p-isocyanatobenzyl)phenyl isocyanate

NOEC/21d >10 mg/l (Daphnia magna) (OECD RL 202)

LC50/96h >1000 mg/l (Danio rerio) (OECD RL 203)

EC50/24h >1000 mg/l (Daphnia magna) (OECD RL 202)

EC50/3h > 100 mg/l (sludge) (OECD RL 209)

EC50/72h >1640 mg/l (Scenedesmus subspicatus) (OECD RL 201)

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

LC50/96h >1000 mg/l (Danio rerio)

LC0/96h >1000 mg/l (Brachydanio rerio)

EC50/24h >100 mg/l (bacteriums)

EC50/48h > 1.000 mg/l (Daphnia magna)

EC50/3h >100 mg/l (sludge) (OECD 209)

- · 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.

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 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. Must be specially treated adhering to official regulations.

- Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

14 Transport information

- · UN-Number
- · DOT, ADR, ADN, IMDG, IATA

Void

· UN proper shipping name

DOT, ADR, ADN, IMDG, IATA

Void

Transport hazard class(es)

· DOT, ADR, ADN, IMDG, IATA

· Class

Void

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Trade name: TEK MAX - MOISTURE BARRIER & PRIMER

(Contd. of page 8)

· Packing group

· DOT, ĂĎR, ÎMDG, IATA

Void

· Environmental hazards:

No

· Marine pollutant: · Special precautions for user

Not applicable.

· Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code

Not applicable.

Transport/Additional information:

Not dangerous according to the above specifications.

 $\cdot DOT$

· Remarks:

not regulated

 $\cdot ADR$

· Remarks:

not regulated

· IMDG

· Remarks:

not regulated

 $\cdot IATA$

· Remarks:

not regulated

· UN "Model Regulation":

Void

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- Section 355 (extremely hazardous substances):

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

TSCA (Toxic Substances Control Act):

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

- 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 formales:

None of the ingredients is listed.

Chemicals known to cause developmental toxicity:

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:

diphenylmethane-4,4'-di-isocyanante, isomers aromatic polyisocyanate

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Trade name: TEK MAX – MOISTURE BARRIER & PRIMER

(Contd. of page 9)

o-(p-isocyanatobenzyl)phenyl isocyanate

diphenylmethane-2,2'-diisocyanate

diphenylmethanediisocyanate,isomeres and homologues

· Hazard statements

Harmful if inhaled.

Causes skin irritation.

Causes serious eye irritation.

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

May cause an allergic skin reaction.

Suspected of causing cancer.

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Do not breathe dust/fume/gas/mist/vapors/spray.

[In case of inadequate ventilation] wear respiratory protection.

Wear protective gloves/protective clothing/eye protection/face protection.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Contaminated work clothing must not be allowed out of the workplace.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

Wash contaminated clothing before reuse.

IF exposed or concerned: Get medical advice/attention.

Specific treatment (see on this label).

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

IF ON SKIN: Wash with plenty of water.

Take off contaminated clothing and wash it before reuse.

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations:

- · VOC:
- · VOC (EU) 0.1 g/l
- **VOC (USA):** 0.1 g/l / 0.00 lb/gl
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

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

H335 May cause respiratory irritation.

(Contd. on page 11)

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Date of Preparation: 03/09/2017 Revision: 1.2 Reviewed on 09/19/2019

Trade name: TEK MAX - MOISTURE BARRIER & PRIMER

(Contd. of page 10)

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

Date of preparation / last revision 03/09/2017 / Revision 1.2 09/19/2019

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

MAL-Code: Måleteknisk Arbejdshygiejnisk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity - Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2