

# SAFETY DATA SHEET

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

### 1.1. Product identifier

**Trade name**

596 - 2K Rigid Mix

**Product no.**

00.596

**REACH registration number**

Not applicable

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

**Relevant identified uses of the substance or mixture**

2 Component glue, hard

**Uses advised against**

-

The full text of any mentioned and identified use categories are given in section 16

### 1.3. Details of the supplier of the safety data sheet

**Company and address**

HBC System Smarttool Production ApS

Hobrovej 961-963

9530 Støvring

Denmark

tel:+45 70 22 70 70

**Contact person**

Vibeke Jørgensen

**E-mail**

info@hbc-system.com

**SDS date**

2015-11-19

**SDS Version**

2.0

### 1.4. Emergency telephone number

Use your national or local emergency number

See section 4 "First aid measures"

## SECTION 2: Hazards identification

### ▼ 2.1. Classification of the substance or mixture

Skin Sens. 1; H317

Resp. Sens. 1; H334

Carc. 2; H351

STOT RE 2; H373

Eye Irrit. 2; H319

Skin Irrit. 2; H315

STOT SE 3; H335

See full text of H-phrases in section 2.2.

### 2.2. Label elements

**Hazard pictogram(s)**



▼ **Signal word**

Danger

▼ **Hazard statement(s)**

May cause an allergic skin reaction. (H317)  
 May cause allergy or asthma symptoms or breathing difficulties if inhaled. (H334)  
 Suspected of causing cancer. (H351)  
 May cause damage to organs through prolonged or repeated exposure. (H373)  
 Causes serious eye irritation. (H319)  
 Causes skin irritation. (H315)  
 May cause respiratory irritation. (H335)

General

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Prevention

Obtain special instructions before use. (P201).  
 Avoid breathing mist/vapours/fume/spray. (P261).  
 [In case of inadequate ventilation] wear respiratory protection. (P284).  
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. (P304+P340).

▼ **Safety**

**statement(s)**

Response

IF exposed or concerned: Get medical advice/attention. (P308+P313).  
 If experiencing respiratory symptoms: Call a POISON CENTER/doctor (P342+P311).

Storage

-

Disposal

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▼ **Identity of the substances primarily responsible for the major health hazards**

4,4'-methylenediphenyl diisocyanate diphenylmethane-4,4'-diisocyanate

**2.3. Other hazards**

This product contains substances which are considered or proven to be carcinogenic.

▼ **Additional labelling**

«Persons already sensitised to — Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. — This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.»

**Additional warnings**

-

**VOC**

-

**SECTION 3: Composition/information on ingredients**

▼ **3.1/3.2. Substances/Mixtures**

NAME:	4,4'-methylenediphenyl diisocyanate diphenylmethane-4,4'-diisocyanate
IDENTIFICATION NOS.:	CAS-no: 101-68-8 EC-no: 202-966-0 Index-no: 615-005-00-9
CONTENT:	40-60%
CLP CLASSIFICATION:	Acute Tox. 4, STOT RE 2, STOT SE 3, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, Carc. 2
NOTE:	H315, H317, H319, H332, H334, H335, H351, H373 I
NAME:	Glyceryl,poly,oxypropylene,triamine
IDENTIFICATION NOS.:	CAS-no: 64852-22-8
CONTENT:	1-3%
CLP CLASSIFICATION:	Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 3 H315, H318, H412

(\*) See full text of H-phrases in chapter 16. Occupational exposure limits are listed in section 8, if these are available.

I = Isocyanate monomer

## Other informations

ATEmix(inhale, vapour) > 20  
Eye Cat. 2 Sum = Sum(Ci/S(G)CLi) = 8,512 - 0,8796  
Skin Cat. 2 Sum = Sum(Ci/S(G)CLi) = 6,928 - 10,392  
N chronic (CAT 4) Sum = Sum(Ci/M(chronic))\*25\*0.1\*10^CAT4) = 0,0704 - 0,1056

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor, if in doubt about the injured person's condition or if the symptoms continue. Never give an unconscious person water or similar.

#### Inhalation

Get the injured person into fresh air. Make sure there is always someone with the injured person. Prevent shock by keeping the injured person warm and calm. If the person stops breathing, give mouth-to-mouth resuscitation. If unconscious, roll the injured person onto side with the top leg bent at both knee and hip. Call an ambulance.

#### Skin contact

Remove contaminated clothing and shoes at once. Skin that has come in contact with the material must be washed thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

#### Eye contact

Remove contact lenses. Flush eyes with water (20-30°C) for at least 15 minutes. Call a doctor.

#### Ingestion

In the case of ingestion, contact a doctor immediately and take this safety data sheet or the label from the material with you. If the person is conscious, give them water. DO NOT try to induce vomiting, unless this is recommended by a doctor. Hold head facing down so that no vomit runs back into the mouth and throat. Prevent shock by keeping the injured person warm and calm. Give mouth-to-mouth resuscitation if breathing stops. If unconscious, roll the injured person onto side with the top leg bent at both knee and hip. Call an ambulance.

#### Burns

Not applicable

### ▼ 4.2. Most important symptoms and effects, both acute and delayed

Carcinogenic effects: This product contains substances which are considered or proven to be carcinogenic. The danger may lie in inhalation, skin contact or ingestion.

Sensitivity effects: This product contains substances which can give an allergic reaction on contact with skin. The allergic reaction will typically set in 12-72 hours after exposure as the substance penetrates the skin and reacts with proteins in the outer skin. The body's immune system sees the chemically changed protein as a foreign body and will try to destroy it.

Sensitivity effects: This product contains substances which can give an allergic reaction when inhaled. The allergic reaction allergy will typically set in an hour after exposure and give an inflammatory reaction in the lungs.

Irritation effects: This product contains substances which cause irritation to skin and eyes, or when inhaled. Contact with locally irritative substances can cause the area of contact to be more prone to absorb damaging substances such as allergens.

### ▼ 4.3. Indication of any immediate medical attention and special treatment needed

IF exposed or concerned:  
Get immediate medical advice/attention.

#### Information to medics

Bring this safety data sheet.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Recommended: alcohol-resistant foam, carbonic acid, powder, water mist. Water jets should not be used, since they can spread the fire.

### 5.2. Special hazards arising from the substance or mixture

If the product is exposed to high temperatures, as in the case of fire, dangerous catabolic substances are produced. These are: Nitrogen oxides. Carbon oxides. Fire will result in thick black smoke. Exposure to

catabolic products can damage your health. Fire fighters should use proper protection gear. Closed containers, which are exposed to fire, should be cooled with water. Do not let fire-extinguishing water run into sewers and other water courses.

### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Avoid inhalation of vapours from waste material. Avoid direct contact with spilled substances.

### ▼ 6.2. Environmental precautions

No specific requirements.

### 6.3. Methods and material for containment and cleaning up

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations. Cleaning should be done as far as possible using normal cleaning agents. Solvents should be avoided.

### 6.4. Reference to other sections

See section on "Disposal considerations" with regard to the handling of waste. See section on 'Exposure controls/personal protection' for protective measures.

## SECTION 7: Handling and storage

### ▼ 7.1. Precautions for safe handling

See section on 'Exposure controls/personal protection' for information on personal protection. Avoid direct contact with the product.

### ▼ 7.2. Conditions for safe storage, including any incompatibilities

Always store in containers of the same material as the original.

#### ▼ Storage temperature

No data available.

### 7.3. Specific end use(s)

This product should only be used for applications described in Section 1.2

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### ▼ OEL

No substances listed.

#### ▼ DNEL / PNEC

### 8.2. Exposure controls

No control is necessary if the product is used in a normal way.

#### General recommendations

▼ Observe general occupational hygiene.

#### Exposure scenarios

If there is an appendix to this safety data sheet, the indicated exposure scenarios must be complied.

#### Exposure limits

There are no maximum exposure limits for the substances contained in this product.

#### Appropriate technical measures

Take ordinary precautions when using the product. Avoid inhalation of gas or dust.

#### Hygiene measures

Whenever you take a break in using this product and when you have finished using it, all exposed areas of the body must be washed. Always wash hands, forearms and face.

#### Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible collect spillage during work.

#### Individual protection measures, such as personal protective equipment



▼ **Generally**

Use only CE marked protective equipment.

**Respiratory Equipment**

If the ventilation at the work place is not sufficient, use a half or whole mask with an appropriate filter or an air-supplied respiratory protector. The choice depends on the concrete work situation and how long you will be using the product.

**Skin protection**

Special work clothing should be used. When working with this product for a long period of time, use a protective suit.

**Hand protection**

Use protective gloves. The concrete work situation is not known. Contact the suppliers of the gloves for help on the glove type. Please note that elastic gloves stretch when used. The thickness of the gloves, and therefore their penetration time, will be reduced. Moreover, the temperature of the glove in use is about 35°C, while the standard test, EN 374-3, is done at 23°C. The penetration time is therefore reduced by a factor of 3.

▼ **Eye protection**

Use safety glasses with a side shield.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Form	Colour	Odour	pH	Viscosity	Density (g/cm <sup>3</sup> )
Liquid	Brown	-	-	-	1,09

**Phase changes**

Melting point (°C)	Boiling point (°C)	Vapour pressure (mm Hg)
-	-	-

**Data on fire and explosion hazards**

Flashpoint (°C)	Ignition (°C)	Self ignition (°C)
-	-	-

Explosion limits (Vol %)	Oxidizing properties
-	-

**Solubility**

Solubility in water	n-octanol/water coefficient
Insoluble	-

**9.2. Other information**

Solubility in fat	Additional information
-	N/A

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No data available

**10.2. Chemical stability**

The product is stable under the conditions, noted in the section on "Handling and storage".

**10.3. Possibility of hazardous reactions**

No special

**10.4. Conditions to avoid**

Do not expose to heat (e.g. sunlight), because it can lead to excess pressure.

**10.5. Incompatible materials**

Strong acids, strong bases, strong oxidizing agents, and strong reductants agents.

**10.6. Hazardous decomposition products**

The product is not degraded when used as specified in section 1.

**SECTION 11: Toxicological information**

### 11.1. Information on toxicological effects

#### ▼ Acute toxicity

Substance	Species	Test	Route of exposure	Result
4,4'-methylenediphenyl diisoc...	Rat	LD50	Oral	9200 mg/kg
4,4'-methylenediphenyl diisoc...	Guinea pig	LD50	Oral	2200 mg/kg
4,4'-methylenediphenyl diisoc...	Rat	LC50	Inhalation	178 mg/kg

#### ▼ Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/irritation

Causes serious eye irritation.

#### Respiratory or skin sensitisation

May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

#### Germ cell mutagenicity

No data available.

#### Carcinogenicity

Suspected of causing cancer.

#### Reproductive toxicity

No data available.

#### STOT-single exposure

May cause respiratory irritation.

#### STOT-repeated exposure

May cause damage to organs.

#### Aspiration hazard

No data available.

#### ▼ Long term effects

**Carcinogenic effects:** This product contains substances which are considered or proven to be carcinogenic. The danger may lie in inhalation, skin contact or ingestion.

**Sensitivity effects:** This product contains substances which can give an allergic reaction on contact with skin. The allergic reaction will typically set in 12-72 hours after exposure as the substance penetrates the skin and reacts with proteins in the outer skin. The body's immune system sees the chemically changed protein as a foreign body and will try to destroy it.

**Sensitivity effects:** This product contains substances which can give an allergic reaction when inhaled. The allergic reaction allergy will typically set in an hour after exposure and give an inflammatory reaction in the lungs.

**Irritation effects:** This product contains substances which cause irritation to skin and eyes, or when inhaled. Contact with locally irritative substances can cause the area of contact to be more prone to absorb damaging substances such as allergens.

## SECTION 12: Ecological information

#### ▼ 12.1. Toxicity

Substance	Species	Test	Test duration	Result
Glycerol,poly,oxypropylene,tri...	Fish	LC50	96 h	68 mg/l

#### ▼ 12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
4,4'-methylenediphenyl diisoc...	No	No data available	No data available

#### ▼ 12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BFC
4,4'-methylenediphenyl diisoc...	Yes	5,22	1300

#### ▼ 12.4. Mobility in soil

4,4'-methylenediphenyl diisoc...: Log Koc= 4,212118, Calculated from LogPow (Low mobility potential.).

#### 12.5. Results of PBT and vPvB assessment

No data available

#### 12.6. Other adverse effects

This product contains substances which can cause undesirable long-term effects in the water environment, due to its poor biodegradability. This product contains substances which can accumulate in the food chain because they are bioaccumulative substances. Bioaccumulative substances can accumulate in fat tissue and are not easily secreted.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

The product is covered by the regulations on dangerous waste.

#### Waste

EWC code

-

#### Specific labelling

-

#### Contaminated packing

Packaging which contains leftovers from the product must be disposed of in the same way as the product.

## SECTION 14: Transport information

Not listed as dangerous goods under ADR and IMDG regulations.

### 14.1 – 14.4

#### ADR/RID

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

Notes

Tunnel restriction code

#### IMDG

UN-no.

Proper Shipping Name

Class

PG\*

EmS

MP\*\*

Hazardous constituent

#### ▼ IATA/ICAO

UN-no.

Proper Shipping Name

Class

PG\*

### 14.5. Environmental hazards

-

### 14.6. Special precautions for user

-

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No data available

(\*) Packing group

(\*\*) Marine pollutant

## SECTION 15: Regulatory information

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

#### ▼ Restrictions for application

People under the age of 18 must not be exposed to this product cf. Council Directive 94/33/EC. Pregnant and nursing women must not be exposed to the effects of this product. The risk, and possible technical precautions or design of the workplace to avoid such risk, must therefore be evaluated.

#### Demands for specific education

The user of this product must have taken special training in working with polyurethane and epoxy products.

#### Additional information

### Sources

COUNCIL DIRECTIVE 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding.

Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

EC Regulation 1272/2008 (CLP).

EC regulation 1907/2006 (REACH).

### 15.2. Chemical safety assessment

No

## SECTION 16: Other information

### ▼ Full text of H-phrases as mentioned in section 3

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

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.

H351 - Suspected of causing cancer.

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

H412 - Harmful to aquatic life with long lasting effects.

### The full text of identified uses as mentioned in section 1

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### Other symbols mentioned in section 2

-

### Other

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

A change (in proportion to the last essential change (first cipher in SDS version)) is marked with a blue triangle.

### The safety data sheet is validated by

kbb

### Date of last essential change (First cipher in SDS version)

2014-12-01

### Date of last minor change (Last cipher in SDS version)

2014-12-01