

## Safety data sheet

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

#### 1.1. Product identifier

Code: IBPM00100  
Product name: PGX-5KR CYAN

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

Intended use **INK FOR DIGITAL PRINTING.**

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

Name **d.gen, Inc.**  
Full address **424-12, Cheongcheon-dong,**  
District and Country **Bupyeong-gu, Incheon 403-030**  
**Korea**  
**Tel. +82 32 510 3503**  
**Fax +82 32 515 5340**

e-mail address of the competent  
person  
responsible for the Safety Data  
Sheet

**order@dgen.com**

#### 1.4. Emergency telephone number

For urgent inquiries refer to +39 0382 24444 / Pavia Poison Center (Italy)

### SECTION 2. Hazards identification.

#### · 2.1 Classification of the substance or mixture

##### · Classification according to Regulation (EC) No 1272/2008

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Skin Sens. 1 H317 May cause an allergic skin reaction.

#### 2.2. Label elements

##### · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

##### · Hazard pictograms



GHS08

##### · Signal word Danger

##### · Hazard-determining components of labelling:

Isocyanic acid, polymethylenepolyphenylene ester, polymer with 2-methyloxirane and 1,2,3-propanetriol

Hexane, 1,6-diisocyanato-, homopolymer

##### · Hazard statements

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

H317 May cause an allergic skin reaction.

• **Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves.

P284 [In case of inadequate ventilation] wear respiratory protection.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

• **2.3 Other hazards**

• **Results of PBT and vPvB assessment**




• **PBT:** Not applicable.

• **vPvB:** Not applicable.

### SECTION 3. Composition/information on ingredients.

• **3.2 Mixtures**

• Description: water based pigment ink

• <b>Dangerous components:</b>		
CAS: 68400-69-1 NLP: 500-207-0	Isocyanic acid, polymethylenepolyphenylene ester, polymer with 2-methyloxirane and 1,2,3-propanetriol	<5-25%
	 Resp. Sens. 1, H334;  Skin Sens. 1, H317	
CAS: 28182-81-2 NLP: 500-060-2	Hexane, 1,6-diisocyanato-, homopolymer  Skin Sense 1, H317	<5-25%

### SECTION 4. First aid measures.

• **4.1 Description of first aid measures**

• **General information** No special measures required.

• **After inhalation** Supply fresh air; consult doctor in case of complaints.

• **After skin contact**

Immediately wash with water and soap and rinse thoroughly.

Take off contaminated clothing and shoes immediately.

• **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.

• **After swallowing**

Rinse out mouth and then drink plenty of water.

If symptoms persist consult doctor.

• **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

• **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### SECTION 5. Firefighting measures.

• **5.1 Extinguishing media**

• **Suitable extinguishing agents**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

• **5.2 Special hazards arising from the substance or mixture**

In case of fire, the following substances can be released:

Nitrogen oxides (NO<sub>x</sub>)

Carbon monoxide (CO)

Carbon dioxide (CO<sub>2</sub>)

• **5.3 Advice for firefighters**

• **Protective equipment:** Wear self-contained respiratory protective device.

## SECTION 6. Accidental release measures.

• **6.1 Personal precautions, protective equipment and emergency procedures**

Observe the usual precautions when handling chemicals

• **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

• **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the material collected according to regulations.

• **6.4 Reference to other sections** See Section 8 for information on personal protection equipment.

## SECTION 7. Handling and storage.

• **7.1 Precautions for safe handling** No special measures required.

• **Information about protection against explosions and fires:** Protect against electrostatic charges.

• **7.2 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:** Store away from oxidising agents.

• **Further information about storage conditions:**

Protect from frost.

Do not keep at temperatures above 30 °C

Protect from sun

Keep receptacle tightly sealed.

• **Storage class** 12 Non-combustible liquids

• **7.3 Specific end use(s)** No further relevant information available.

## SECTION 8. Exposure controls/personal protection.

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

• **8.1 Control parameters**

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

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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

• **8.2 Exposure controls**

- **Personal protective equipment**

- **General protective and hygienic measures**

The usual precautionary measures should be adhered to when handling chemicals.

- **Breathing equipment:** Use suitable respiratory protective device only when aerosol or mist is formed.

- **Protection of hands:** Protective gloves.

- **Material of gloves**

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.

PVC gloves

Nitrile rubber, NBR

Recommended thickness of the material:  $\geq 0.5$  mm

- **Penetration time of glove material**

Value for the permeation: Level  $\leq 6$

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

- **Eye protection:** Safety glasses

- **Body protection:** Light weight protective clothing

## SECTION 9. Physical and chemical properties.

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

Properties	Value
Appearance:	Fluid
Colour:	Cyan
Odour:	Characteristic
pH at 20 °C:	7 - 9
Melting point / freezing point:	N.A.
Initial boiling point and boiling range:	100 °C
Flash point:	N.A
Self igniting:	Product is not selfigniting.
Explosive properties:	Product does not exhibit An explosion hazard.
Density	Not determined
Solubility in/Miscibility with water	Miscible
Viscosity	
Dynamic:	Not determined

### 9.2. Other information

No further relevant information available.

## SECTION 10. Stability and reactivity.

- **10.1 Reactivity** No further relevant information available.

- **10.2 Chemical stability**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**  
In case of correct handling and storage no decomposition will occur.

## SECTION 11. Toxicological information.

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation**  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause an allergic skin reaction.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

## SECTION 12. Ecological information.

- **12.1 Toxicity**
- **Aquatic toxicity:**  
This statement was deduced from products with a similar structure or composition.  
LC50: > 100 mg/l (96h) OECD 203  
EC50: > 100 mg/l (48h) OECD 202
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility** in soil No further relevant information available.

- **Ecotoxicological effects:**

- **Remark:**

According to available knowledge, no disturbances of biological decomposition in sewage treatment plants are known.

- **12.5 Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

- **12.6 Other adverse effects** No further relevant information available.

## SECTION 13. Disposal considerations.

### • 13.1 Waste treatment methods

- **Recommendation** Disposal must be made according to official regulations

### • **Waste disposal key:**

According to the EAK decree, the specification of the waste disposal key code shall be specific to the respective industrial section and the application process.

### • **Uncleaned packagings:**

#### • **Recommendation:**

Contaminated packagings should be emptied thoroughly. They can be recycled after thorough and proper cleaning.

- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## SECTION 14. Transport information.

### 14.1. UN number

ADR, ADN, IMDG, IATA : Void

### 14.2. UN proper shipping name

ADR : Void

ADN, IMDG, IATA : Void

### 14.3. Transport hazard class(es)

ADR, ADN, IMDG, IATA

Class : Void

### 14.4. Packing group

ADR, IMDG, IATA : Void

### 14.5. Environmental hazards

N.A.

### 14.6. Special precautions for user

N.A.

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

N.A.

## SECTION 15. Regulatory information.

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

#### • **Directive 2012/18/EU**

- Named dangerous substances - ANNEX I None of the ingredients is listed.

- National regulations

- Water hazard class:

- Manufacturers' self-imposed commitment to classify textile auxiliaries according to their relevance for water pollution (TEGEWA, TVI)

Abwasserrelevanzstufe (ARS): I

(level of relevance to waste water - Germany)

- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 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.

- Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer  
(Regulations Concerning the

International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

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