

24, Oehang 1-gil, Gunsan-si, Jeollabuk-do, Republic of Korea		Rev. date	2016. 07. 01
Tel. 82-63-462 - 6018	BG	Version	7
Fax 82-63-462 - 6009	CAS No : 111-76-2	page	5



1. Chemical product and company identification


- A. Product name **BG**
- B. Material Uses Not available.
- C. Supplier/Manufacturer
- HANNONG CHEMICALS
- 24, Oehang 1-gil, Gunsan-si, Jeollabuk-do, Republic of Korea
- 82-63-462 - 6018
- R&D center

2. Hazards Identification

- A. GHS classification of the substance
- Acute toxicity(oral) 4
- Acute toxicity(Inhalation) 3
- Toxic to reproduction 2
- Serious eye damage / eye irritation 2A

- B. GHS label elements, including precautionary statements

<input type="radio"/> Symbols	<input type="radio"/> Signal word	<input type="radio"/> Hazard statement
 		H302 Harmful if swallowed H331 Toxic if inhaled H361 Suspected of damaging fertility or the unborn child H319 Causes serious eye irritation
		<input type="radio"/> Precautionary statements <Prevention> P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P271 Use only outdoors or in a well-ventilated area. P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P264 Wash ... thoroughly after handling P280 Wear protective gloves/protective clothing/eye protection/face protection.

	Danger	<p><Response></p> <p>P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor/ if you feel unwell.</p> <p>P330 Rinse mouth.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P311 Call a POISON CENTER/doctor</p> <p>P321 Specific treatment (see on this label).</p> <p>P308+P313 IF exposed or concerned: Get medical advice/attention.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P337+P313 If eye irritation persists: Get medical advice/attention.</p> <p><Storage></p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p> <p><Disposal></p> <p>P501 Dispose of contents/container to in accordance with local/regional/national/international regulations (to be specified).</p>
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C. Other hazards which do not result in classification or are not covered by the GHS

–NFPA Health : 3 Fire Hazard : 2 Reactivity : 0

3. Composition/information on ingredients

Chemical name	Common name	CAS No.	Contents (%)
2-Butoxyethanol	ETHYLENE GLYCOL MONO BUTYL ETHER	111–76–2	100%

4. First Aid Measures

A. General advice:

Remove contaminated clothing

B. If inhaled:

Remove the affected individual into fresh air and keep the person calm. Seek medical attention.

C. If on skin:

Wash thoroughly with soap and water.

D. If in eyes:

Seek medical attention.

Wash affected eyes for at least 15 minutes under running water with eyelids held open

E. If in eyes:

Seek medical attention.

Wash affected eyes for at least 15 minutes under running water with eyelids held open

F. If swallowed:

Immediately rinse mouth and then drink plenty of water, do not induce vomiting. Seek medical attention.

5. Fire-fighting measures

A. Suitable extinguishing media:

water, dry extinguishing media, foam

B. Products of Combustion : Carbon oxide(CO, CO₂)

C. Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

6. Accidental release measures

A. Personal precautions:

Use personal protective clothing.

B. Environmental precautions:

Do not discharge into drains surface waters, groundwater.

C. Cleanup :

–For small amounts:

Pick up with absorbent material. Dispose of absorbed material in accordance with regulations.

–For large amounts:

Pump off product.

7. Handling and storage

A. Handling

Avoid contact with eyes. Do not ingest. Avoid breathing vapors or spray mists.

Avoid prolonged or repeated contact with skin. Do not get on skin or clothing.

Keep container closed. Wash thoroughly after handling.

B. Storage

Keep container tightly closed. Keep container in a cool, well-ventilated area.

8. Exposure controls / personal protection

A. Control parameters. Occupational exposure limit values or biological limit values.

ACGIH	
TWA	20 ppm

B. Engineering controls:

Ensure adequate ventilation.

C. Personal protection:

Eyes : Splash goggles.

Body : Lab coat.

Hands : Gloves.

Respiratory : Wear appropriate respirator when ventilation is inadequate.

9. Physical and chemical properties

A. Appearance	Liquid	B. Odour	faint odour
C. Odour threshold	Not available	D. pH	Not available
E. mp/fp(°C)	-74.8	F. bp(°C)	171
G. Flash point(°C)	62	H. Evaporation rate(n-BA=1)	0.06
I. Flammability(solid,gas)	Not available	J. Upper/lower explosive limits	1.1% /12.7%
K. Vap. pressure(mmHg @25°C)	0.88	L. Solubility(@25°C)	100g/100ml
M. Vap. density(air=1)	4.1	N. Density(@20°C)	0.902
O. Partition coefficient (n-octanol/water)	0.83	P. Auto-ignition temperature(°C)	238
Q. Decomposition temp.(°C)	Not available	R. Viscosity(cP, @25°C)	3.88
S. Molecular weight	118		

10. Stability and reactivity

- A. Chemical stability : the product is stable
- B. Incompatibility with various substances : oxidizing agents. Strong alkalies.
- C. Possibility of hazardous reactions : the product is stable
- D. Hazardous decomposition products : Carbon oxide

11. Toxicological information

- A. Information on the likely routes of exposure
 - inhalation : Irritant
 - ingestion : Nausea, vomiting, diarrhea, headache, drowsiness, dizziness
 - eye : Irritant
 - skin Irritant
- B. Delayed and immediate effects and also chronic effects from short- and long-term exposure

Acute toxicity	oral	LD50 470mg/kg(rat)	inhalation	LC50 2.2mg/l(4hr,rat)	
Skin irritation	rabbit : mild				
Eye irritation	rabbit : irritant				
Chronic toxicity	Toxic to reproduction 2				

- C. Numerical measures of toxicity(such as acute toxicity estimates) : Not available

12. Ecological information

- | | |
|----------------------------------|---|
| A. Ecotoxicity | Acute fish toxicity:1250000ug/L 96hr LC50 |
| B. Persistence and degradability | : Not available |
| C. Bioaccumulative potential | : Not available |
| D. Mobility in soil | Not available |
| E. Other adverse effects | : Not available |

13. Disposal considerations

A. Waste information

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

B. Container disposal

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport information

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|-------------------------------|------------------|
| A. UN number | :Not classified |
| B. UN proper shipping name | : Not classified |
| C. Transport Hazsrd class(es) | : Not classified |
| D. Packing group | Not classified |
| E. Marine pollutant | No |

15. Regulatory information

- | | |
|------------------------------|----------------------|
| A. U.S. Regulation (TSCA) | : listed |
| B. Other International lists | : Korea(TCCL) listed |

16. Other information

A. Information on prepatation

Authorized for internal use only. For external use licence, contact.

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| B. Revision date & version | 2016. 07. 01 | 7 |
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