

# MATERIAL SAFETY DATA SHEET

The SDS is prepared according to the MOEL Public notice  
No 2020-130

Revision date 2024-Mar-12

Revision number 1.08

**MSDS Number:** AA12341-0030531409

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### A Product identifier

Product name	BISOMER <sup>®</sup> PTE
Product code	745827
Synonyms	Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-

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

Recommended use [RU]	Monomer for special polymers
Uses advised against	None known

### C Details of the supplier of the safety data sheet

Importer	CO CHEM Ltd 1207, 415, Heungan-daero, Dongan-gu, Anyang-si, Gyeonggi-do, Republic of Korea 14059
Supplier	GEO Specialty Chemicals UK Ltd Charleston Road, Hardley, Hythe Southampton, Hampshire SO45 3ZG United Kingdom Phone: +44 (0)23 80894666 Fax No: +44 (0)23 80243113

Responsibility Statement	For further information, please contact <a href="mailto:safety-data-sheet-fp@geosc.com">safety-data-sheet-fp@geosc.com</a>
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### D Emergency telephone number

Emergency telephone	24 Hour Emergency Phone Number GEO Specialty Chemicals UK Ltd +44 (0)23 80891806
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	CO CHEM Ltd +82-10-9265-7633
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## 2. HAZARDS IDENTIFICATION

### A Classification of the substance or mixture

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1
Chronic aquatic toxicity	Category 3

## B Label elements



Signal word

Danger

Hazard statements

H302 - Harmful if swallowed  
 H315 - Causes skin irritation  
 H317 - May cause an allergic skin reaction  
 H318 - Causes serious eye damage  
 H412 - Harmful to aquatic life with long lasting effects

### Precautionary Statements - EU (§28, 1272/2008)

Prevention  
Response

Wear protective gloves/protective clothing/eye protection/face protection  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 IF ON SKIN: Wash with plenty of soap and water  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If skin irritation occurs: Get medical advice/attention

Hazard components for labeling

Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol  
 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-

## C Other hazards which do not result in classification

Not applicable

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Substance

Chemical name	Common name	CAS No	Korea INV No	Weight-%
Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-	N,N-Bis-(2-hydroxyethyl)-para-toluidine	CBI	Non-Listed Substance	>= 96

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## 4. FIRST AID MEASURES

**A** Description of first aid measures

Eye contact	Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.
Skin contact	Rinse immediately with plenty of running water (for 10 minutes). Remove all contaminated clothing and apply bandage. Seek medical advice.
Ingestion	Seek medical advice immediately. Rinse mouth with water, then drink one or two glasses of water. Do NOT induce vomiting.
Inhalation	Remove to fresh air.

**B** Most important symptoms and effects, both acute and delayed

Most important symptoms and effects	Not applicable.
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**C** Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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**5. FIRE-FIGHTING MEASURES****A** Extinguishing media

Suitable extinguishing media	Water spray jet, Alcohol-resistant foam, Extinguishing powder, Carbon dioxide.
Extinguishing media which must not be used for safety reasons	High pressure waterjet.

**B** Special hazards arising from the substance or mixture

Special Hazard	Formation of toxic gases is possible during heating or in fires.
Hazardous combustion products	Carbon oxides. Nitrous gases.

**C** Advice for firefighters

Special protective equipment for firefighters	Full protective clothing and approved self-contained breathing apparatus required for firefighting personnel.
Firefighting measures	In case of fire: Cool container with water spray.

**6. ACCIDENTAL RELEASE MEASURES****A** Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear suitable protective clothing and gloves.
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**B** Environmental precautions

Environmental precautions	Do not empty into drains/surface water/ground water. Inform authorities in the event of product spillage to water courses or sewage systems.
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**C** Methods and material for containment and cleaning up

Methods for cleaning up	Remove with liquid-absorbing material (sand, peat, sawdust).
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**D** Reference to other sections

See Section 12 for additional Ecological Information

## 7. HANDLING AND STORAGE

### A Precautions for safe handling

**Advice on safe handling** Avoid spraying/aerosol generation.  
Ensure good ventilation/suction at the workplace.  
Ensure that eyewash stations and safety showers are close to the workstation location

### B Conditions for safe storage, including any incompatibilities

**Technical measures and storage conditions** Keep only in the original container in a cool, well-ventilated place  
Store in a dry place  
Store away from direct heat or sunlight.

**Materials to avoid** Oxidizing agents. Strong acids.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### A Control parameters

#### Occupational exposure limit value

Chemical name	CAS No	National occupational exposure limits	ACGIH TLV
Reaction mass of 2,2'-[(4-methylphenyl)imino] bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy)ethyl] (4-methylphenyl)amino]-	-	No data available	No data available

### B Appropriate engineering controls

**Environmental exposure controls** No data available

### C Personal Protective Equipment

**Eye/face Protection** Tight sealing safety goggles.

**Hand Protection** Appropriate chemical resistant gloves should be worn

**Skin and body protection** Wear suitable protective clothing

**Respiratory protection** Use only in well-ventilated areas. During spraying wear breathing mask.

**Other personal protection data** Eyewash fountains and safety showers must be easily accessible.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**  
**Physical state** liquid  
**Color** dark orange

**Odor** characteristic

**Odor threshold** No data available

**pH** No data available

Melting / freezing point	No data available
Boiling point / boiling range	> 275 °C / °F - OECD Test No. 103
Flash point	176 °C / 348.8 °F @ 1013 hPa - EU Method A.9: Closed Cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Flammability Limit in Air	No data available
Upper flammability limit	No data available
Lower flammability limit	No data available
Vapor pressure	0.0025 Pa @25°C Pa @ 25 °C - OECD Test No. 104
Vapor density	No data available
Specific gravity	No data available
Solubility(ies)	
Solubility (water)	21.8 g/L - OECD Test No. 105
Solubility in other solvents	No data available
Partition coefficient: n-octanol/water	2.17 - OECD Test No. 117
Autoignition temperature	395 °C / 743 °F @ 1006.7 - 1019.2 hPa - DIN 51794
Viscosity	
Kinematic viscosity	2320.00 mm <sup>2</sup> /s @ 25 °C - ASTM D 445-97
Dynamic viscosity	No data available
Molecular weight	217 g/mol

## 10. STABILITY AND REACTIVITY

### A Reactivity

Reactivity No data available.

### B Chemical stability

Chemical stability Stable under normal conditions.

### C Possibility of hazardous reactions

Hazardous polymerization Not anticipated under normal or recommended handling and storage conditions.

### D Conditions to avoid

Conditions to avoid No data available.

### E Incompatible materials

Materials to avoid Oxidizing agents. Strong acids.

### F Hazardous decomposition products

Hazardous decomposition products Amines.

## 11. TOXICOLOGICAL INFORMATION

### A Information on likely routes of exposure

#### Acute health hazard

Eye contact	Causes serious eye damage.
Skin contact	May cause an allergic skin reaction. Causes skin irritation.
Ingestion	Harmful if swallowed.
Inhalation	None known.

### B Health hazards

#### Acute toxicity - Product Information

Oral LD50	619 mg/kg Method: OECD Test No. 401: Acute Oral Toxicity
Dermal LD50	> 2,000 mg/kg Method: OECD Test No. 402: Acute Dermal Toxicity
Inhalation LC50	No data available
Skin corrosion/irritation	Irritating Method: OECD Test No. 439: In Vitro Skin Irritation: Reconstructed Human Epidermis Test Method
Serious eye damage/eye irritation	Severely irritating to eyes Method: OECD Test No. 405: Acute Eye Irritation/Corrosion
Sensitization	Dermal sensitization: sensitizing Method: OECD Test No. 429: Skin Sensitization: Local Lymph Node Assay
Germ cell mutagenicity	No data available
Mutagenicity	Not clastogenic in human lymphocytes
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity - Single exposure	No data available
Specific target organ toxicity - Repeated exposure	No data available
Aspiration hazard	No data available

## 12. ECOLOGICAL INFORMATION

### A Toxicity

#### Acute aquatic toxicity - Product Information

Fish	No data available
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**Crustacea** EC50 (48 hour): 48 mg/l  
Method: OECD Test No. 202: Daphnia sp., Acute Immobilization Test

**Algae/aquatic plants** No data available

Chemical name	Algae/aquatic plants	Fish	Crustacea
Reaction mass of 2,2'-[[4-methylphenyl]imino] bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy)ethyl] (4-methylphenyl)amino]- (>= 96)	EC50 > 100 mg/L; Method: OECD Test No. 201: Freshwater Alga and Cyanobacteria, Growth Inhibition Test	LC50 (96 h) > 100 mg/L; Method: OECD Test No. 203: Fish, Acute Toxicity Test	EC50 (48 h): 48 mg/l; Method: OECD Test No. 202: Daphnia sp., Acute Immobilization Test

## B Persistence and degradability

**Persistence and degradability** Not readily biodegradable  
Method: OECD Test No. 301B: Ready Biodegradability: CO2 Evolution Test (TG 301 B)

## C Bioaccumulative potential

**Bioaccumulative potential** No bioaccumulation potential (log Kow = 2.17 - OECD Test No. 117)

## D Mobility in soil

**Mobility** Log Koc 2.33 @ 20°C – OECD Test No. 121

## E Results of PBT and vPvB assessment

**PBT and vPvB assessment** This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)  
This substance is not considered to be very persistent nor very bioaccumulating (vPvB)  
**Results of PBT and vPvB assessment** No data available

## F Other adverse effects

**Other information** No other ecological studies have been carried out on this product.

# 13. DISPOSAL CONSIDERATIONS

## A Waste treatment methods

**Disposal of wastes** Waste incineration with the approval of the responsible local authority.

**Contaminated packaging** Disposal must be made according to official regulations.

# 14. TRANSPORT INFORMATION

US DOT Not applicable

- 14.1 DOT UN/NA Number
- 14.2 UN proper shipping name
- 14.3 Hazard class
- 14.4 Packing group
- 14.5 Marine pollutant

Land transport (ADR/RID) Not applicable

- 14.1 UN number
- 14.2 UN proper shipping name
- 14.3 Hazard class
- 14.4 Packing group
- 14.5 Environmental hazard

Air transport (ICAO-TI / IATA-DGR) Not applicable

- 14.1 UN number
- 14.2 UN proper shipping name
- 14.3 Hazard class
- 14.4 Packing group
- 14.5 Environmental hazard

Sea transport (IMDG) Not applicable

- 14.1 UN number
- 14.2 UN proper shipping name
- 14.3 Hazard class
- 14.4 Packing group
- 14.5 Environmental hazard

14.6 Special precautions for user

Not applicable

## 15. REGULATORY INFORMATION

### A Industrial Safety and Health Act

Article 37 - Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying

None of the components are listed.

Article 38 - Harmful substances requiring permission

None of the components are listed.

Hazardous substances subject to control

Not applicable

Harmful agents subject to workers requiring health examination

Not applicable

Harmful agents subject to work environment monitoring

Not applicable

Occupational exposure limits

See section 8 for more information

### B Chemicals Control Act

Not applicable

### C Safety Control of Dangerous Substances Act

Not applicable

### D Waste Control Act

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

### E Other information

#### International Inventories

Australia (AICS)

All ingredients are on the inventory or exempt from listing

Canada (DSL)

Some ingredients are not on the inventory.



**Canada (NDSL)**

Some ingredients are on the inventory.

**China (IECSC)**

All ingredients are on the inventory or exempt from listing

**European Union (EINECS)**

All ingredients are on the inventory or exempt from listing

**European Union (ELINCS)**

None of the ingredients are on the inventory.

**Japan (ENCS)**

All ingredients are on the inventory or exempt from listing

**EC-Label**

All ingredients are on the inventory or exempt from listing

**Philippines (PICCS)**

All ingredients are on the inventory or exempt from listing

**United States (TSCA)**

All ingredients are on the inventory or exempt from listing

**Legend**

**AIIC** - Australian Inventory of Industrial Chemicals

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**IECSC** - China Inventory of Existing Chemical Substances

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

## 16. OTHER INFORMATION

Product code	745827
Revision date	2024-Mar-12
MSDS Number:	AA12341-0030531409

**Key or legend to abbreviations and acronyms used in the safety data sheet**

NAV - Not available

**Additional information**

BISOMER® is a registered trademark of GEO Specialty Chemicals UK Ltd.

GEO Specialty Chemicals UK Ltd. has appointed Knoel Korea Limited as the sole representative of the Act on the Registration and Evaluation of Chemicals.

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