SAFETY DATA SHEET

Revision date 2021-Oct-01 **Revision number** 2.06

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

1.1 Product identifier

Product name BISOMER® PTE
Product code 745827
Synonyms Reaction mass of 2,2'-[(4-methylphenyl)imino]bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy)ethyl](4-methylphenyl)amino]-
REACH registration number 01-2119979579-10-0006

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

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

1.3 Details of the supplier of the safety data sheet

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 **safety-data-sheet-fp@geosc.com**

1.4 Emergency telephone number

Emergency telephone 24 Hour Emergency Phone Number
GEO Specialty Chemicals UK Ltd
+44 (0)23 80891806

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

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

2.2 Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

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
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P332 + P313 - 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]-

2.3 Other Information

None known

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Component	EU EINECS	weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	(REACh) Regulation (EC 1907/2006)
Reaction mass of 2,2'-[(4-methylphenyl)imino] bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy)ethyl] (4-methylphenyl)amino]-	911-490-9	>= 96	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)	Registration Number 01-2119979579-10-0006

For the full text of the H-Statements mentioned in this Section, see Section 16.

3.2 Mixtures

Not applicable

4. FIRST AID MEASURES

4.1 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.

4.2 Most important symptoms and effects, both acute and delayed

Most important symptoms and effects
No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Note to physicians
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1 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.

5.2 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.

5.3 Advice for firefighters

Special protective equipment for firefighters
Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Firefighting measures
In case of fire: Cool container with water spray.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions
Wear suitable protective clothing and gloves.

6.2 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.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up
Remove with liquid-absorbing material (sand, peat, sawdust).

6.4 Reference to other sections

See Section 12 for additional Ecological Information

7. HANDLING AND STORAGE

7.1 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

7.2 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.

7.3 Specific end use(s)

Specific use(s)
Refer to e-SDS

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limit value

Component	European Union	United Kingdom	Spain	Germany
Reaction mass of 2,2'-[(4-methylphenyl)imino] bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy)ethyl] (4-methylphenyl)amino]-	NAV	NAV	NAV	NAV

Biological limit values

Component	European Union	United Kingdom	Spain	Germany
Reaction mass of 2,2'-[(4-methylphenyl)imino] bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy)ethyl] (4-methylphenyl)amino]-	NAV	NAV	NAV	NAV

Legend
NAV - Not available

Derived No Effect Level (DNEL)						
Name on List	**End User**	**Exposure route**	**Health Effects**	**Exposure Time**	**Values**	**Remarks**
Reaction mass of 2,2'-[(4-methylphenyl) imino]bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy) ethyl] (4-methylphenyl)amino]-	workers	Inhalation	Chronic effects		9.8 mg/m³	
	workers	Skin contact	Chronic effects		1.4 mg/kg	

	consumers	Inhalation	Chronic effects		2.9 mg/m³	
	consumers	Skin contact	Chronic effects		0.83 mg/kg	
	consumers	Ingestion	Chronic effects		0.83 mg/kg	

Predicted No Effect Concentration (PNEC)				
Name on List	**Environmental Compartment**	**Exposure Time**	**Values**	**Remarks**
Reaction mass of 2,2'-[(4-methylphenyl) imino]bisethanol and Ethanol 2-[[2-(2-hydroxyethoxy) ethyl] (4-methylphenyl)amino]-	Fresh water		0.048 mg/l	
	Marine water		0.0048 mg/l	
			0.48 mg/l	PNEC Aqua (intermittent release)
	Fresh water sediment		1.2 mg/kg	
	Marine sediment		0.12 mg/kg	
	Soil		0.21 mg/kg	

8.2 Exposure controls

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.

Environmental exposure controls
No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	liquid
Color	dark orange
Appearance	clear
Odor	characteristic
Odor threshold	No information available

Property	**Values**	**Remarks**
pH	No information available	No information available
Melting / freezing point	No information available	No information available
Boiling point / boiling range	> 275 °C / > 527 °F	OECD Test No. 103
Flash point	176 °C / 348.8 °F @ 1013 hPa	EU Method A.9: Closed Cup

Evaporation rate	No information available	No information available
Flammability (solid, gas)	No information available	No information available
Flammability Limit in Air		
Upper flammability limit	No information available	No information available
Lower flammability limit	No information available	No information available
Vapor pressure	0.0025 Pa @ 25 °C	OECD Test No. 104
Vapor density	No information available	No information available
Specific gravity	No information available	No information available
Solubility (water)	21.8 g/L	OECD Test No. 105
Solubility in other solvents	No information available	No information 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
Decomposition temperature	No information available	No information available
Kinematic viscosity	2320.00 mm2/s @ 25 °C	ASTM D 445-97
Dynamic viscosity	No information available	No information available
Density	1.11 g/cm ^{3} @ 20 °C	OECD Test No. 109

9.2 Other information

Bulk Density	No information available
Explosive properties	Not an explosive.
Oxidizing properties	The substance or mixture is not classified as oxidizing.
Softening point	No information available
Molecular weight	217 g/mol
Volatile Organic Compound (VOC) content, wt.%	No information available
Percent Volatile, wt.%	No information available

10. STABILITY AND REACTIVITY

10.1 Reactivity

Reactivity
No information available.

10.2 Chemical stability

Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

Conditions to avoid
None known.

10.5 Incompatible materials

Materials to avoid
Oxidizing agents. Strong acids.

10.6 Hazardous decomposition products

Hazardous decomposition products
Amines.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

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.

Acute toxicity

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 information 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 information available

Mutagenicity
Not clastogenic in human lymphocytes

Carcinogenicity
No information available

Reproductive toxicity
No information available

Specific target organ toxicity - Single exposure
No information available

Specific target organ toxicity - Repeated exposure
No information available

Aspiration hazard
No information available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Acute aquatic toxicity

Fish	LC50 (96 hour) > 100 mg/L Method: OECD Test No. 203: Fish, Acute Toxicity Test
Crustacea	EC50 (48 hour): 48 mg/l Method: OECD Test No. 202: Daphnia sp., Acute Immobilization Test
Algae/aquatic plants	EC50 > 100 mg/L Method: OECD Test No. 201: Freshwater Alga and Cyanobacteria, Growth Inhibition Test

12.2 Persistence and degradability

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

12.3 Bioaccumulative potential

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

12.4 Mobility in soil

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

12.5 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)

12.6 Other adverse effects

Other information
None known

13. DISPOSAL CONSIDERATIONS

13.1 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 regulated
14.1. UN number
14.2. UN proper shipping name
14.3. Transport hazard class(es)
14.4. Packing group
14.5. Environmental hazards
14.6. Special precautions for user

Land transport (ADR/RID) Not regulated
14.1. UN number
14.2. UN proper shipping name
14.3. Transport hazard class(es)
14.4. Packing group
14.5. Environmental hazards
14.6. Special precautions for user

Air transport (ICAO-TI / IATA-DGR) Not regulated
14.1. UN number
14.2. UN proper shipping name
14.3. Transport hazard class(es)
14.4. Packing group
14.5. Environmental hazards
14.6. Special precautions for user

Sea transport (IMDG) Not regulated
14.1. UN number
14.2. UN proper shipping name
14.3. Transport hazard class(es)
14.4. Packing group
14.5. Environmental hazards
14.6. Special precautions for user

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

15. REGULATORY INFORMATION

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

International Inventories

Australia (AICS)
All ingredients are on the inventory or exempt from listing

Canada (DSL)
All ingredients are on the inventory or exempt from listing

Canada (NDSL)
None of the 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

South Korea (KECL)
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
AICS - Australian Inventory of Chemical Substances
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

15.2 Chemical Safety Report

A Chemical Safety Assessment has been carried out for this substance. Refer to e-SDS.

16. OTHER INFORMATION

Product code 745827

Revision date 2021-Oct-01

Full text of H-Statements referred to under sections 2 and 3
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

Key or legend to abbreviations and acronyms used in the safety data sheet
NAV - Not available

This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006.

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

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.