## Material Safety Data Sheet

| Section 1 : Chemical Product Company Identification |   |
|---|---|
| Product Name  | Miglustat N-Oxide   |
| CAS No.   | NA  |
| Identified uses                                     | Pharmaceutical Reference Standard   |
| Details of the Supplier Company                     | SynZeal Research Pvt Ltd<br>Plot No. F, Ganesh Industrial Estate<br>423/24/8, MahagujaratInd Estate<br>Sarkhej-Bavla Road,<br>Ahmedabad-382 213.<br>Gujarat, India. |
| Telephone   | +91-7969225400  |

| Section 2 : Chemical Information |   |
|----------------------------------|---|
| Chemical Name                    | (2R,3R,4R,5S)-1-Butyl-3,4,5-trihydroxy-2-(hydroxymethyl)piperidine<br>1-oxide |
| CAS No.                          | NA  |
| Molecular Weight                 | 235.3   |
| Molecular Formula                | C10H21NO5   |

| Section 3 : Hazards Identification |                             |  |
|------------------------------------|-----------------------------|--|
| Emergency Overview:                |                             |  |
| Appearance                         | Off White Hygroscopic Solid |  |
| Target Organs                      | NA                          |  |
| Potential Health Effects:          |                             |  |
| Еуе                                | NIL                         |  |
| Skin                               | NIL                         |  |
| Ingestion                          | NIL                         |  |
| Inhalation                         | NIL                         |  |
| Chronic                            | NIL                         |  |

| Hazard Statement:                  |
|------------------------------------|
| H302:Harmful if swallowed.         |
| H312:Harmful in contact with skin. |

H315:Causes skin irritation.

H319:Causes serious eye irritation.

H332:Harmful if inhaled.

H335:May cause respiratory irritation.

Precautionary Statement:

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

P262:Do not get in eyes, on skin, or on clothing.

P271:Use only outdoors or in a well-ventilated area.

P280:Wear protective gloves/protective clothing/eye protection/face protection.

P302 + P352: IF ON SKIN: Wash with plenty of water

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

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313:IF exposed or concerned: Get medical advice/attention.

| Section 4 : First Aid Measures |  |
|--------------------------------|--|
| Еуе                            | Wash with plenty of water  |
| Skin                           | Wash with plenty of water  |
| Ingestion                      | Medical assistance for gastric lavage.                                       |
| Inhalation                     | Remove to fresh air, artificial respiration or oxygen if necessary.          |
| Notes to Physician             | Miglustat N-Oxide can be washed with plenty of water in case of any exposure |

| Section 5 : Firefighting Measures  |   |
|------------------------------------|---|
| Extinguishing Media                | Carbon dioxide, dry chemical powder, foam, water. |
| Unusual Fire and Explosion Hazards | None indicated                                    |

| Section 6 : Accidental Release Measures |  |
|---|--|
| Personal Precautions                    | Wear self-contained breathing apparatus, avoid dust formation. |
| Spills/Leaks                            | Wash with plenty of water, provide adequate ventilation.       |

| Section 7 : Handlings and Storage |                      |
|-----------------------------------|----------------------|
| Handling                          | Wear surgical gloves |
| Storage                           |                      |

| Section 8 : Exposure Controls, Personal Protection |                                    |
|--|------------------------------------|
| Respiratory Protection                             | Self-contained breathing apparatus |
| Exposure Limits                                    | NA                                 |
| Eye Protection                                     | Wear safety goggles                |
| Other Protective Equipment                         | Protective clothing                |
| Skin   | Full sleeves apron                 |
| Clothing   | Cotton                             |

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| Section 9 : Physical and Chemical Properties |                             |
|--|-----------------------------|
| Appearance                                   | Off White Hygroscopic Solid |
| Odor   | Odor less                   |
| Melting Point                                | NA                          |
| рН   | Basic                       |
| Vapor Pressure                               | NA                          |
| Vapor Density                                | NA                          |
| Evaporation Rate                             | NA                          |
| Viscosity                                    | NA                          |
| Boiling Point                                | NA                          |
| Decomposition Temp                           | NA                          |
| Auto ignition Temp.                          | NA                          |
| Flash Point                                  | NA                          |
| NFPA Rating                                  | NA                          |
| Explosion Limits                             |                             |
| Lower  | NA                          |
| Upper  | NA                          |
| Solubility                                   | Chloroform, Methanol        |
| Specific Gravity/Density                     | NA                          |

| Section 10 : Stability and Reactivity  |                         |
|--|-------------------------|
| Chemical Stability                     |                         |
| Conditions to avoid                    | Direct contract to skin |
| Incompatibilities with other Materials | Keep away               |
| Hazardous Decomposition Products       | NIL                     |

| Hazardous Polymerization   | NIL                |  |
|--|--------------------|--|
|  |                    |  |
| Section 11 : Toxicological Information   |                    |  |
| CAS  | NA                 |  |
| LD50/LC50  | NA                 |  |
| Carcinogenicity  | NIL                |  |
| Epidemiology   | NIL                |  |
| Teratogenicity   | NIL                |  |
| Reproductive Effects   | NIL                |  |
| Neurotoxicity  | NIL                |  |
| Mutagencity  | NIL                |  |
| Other Studies  | NA                 |  |
| Section 12 : Ecological Information Data not available                                 |                    |  |
| Section 13 : Disposal Consideration  |                    |  |
| RCRA P-Series  | Can be incinerated |  |
| RCRA U-Series  | NA                 |  |
| Section 14 : Transport Consideration   |                    |  |
| UN-Number  |                    |  |
| ADR/RID: IMDG: IATA:   |                    |  |
| UN proper shipping name  |                    |  |
| ADR/RID: Not dangerous goods<br>IMDG: Not dangerous goods<br>IATA: Not dangerous goods |                    |  |
| Transport hazard class(es)   |                    |  |
| ADR/RID: IMDG: IATA:   |                    |  |
| Packaging Group  |                    |  |
| ADR/RID: IMDG: IATA:   |                    |  |
| Environmental hazards  |                    |  |
| ADR/RID: No IMDG Marine pollutant: No IATA: No   |                    |  |
|  |                    |  |

| Further information  |                                      |
|--|--------------------------------------|
| Section 15 : Regulatory Information  |                                      |
| TSCA   | Attached the letter                  |
| Health and Safety Reporting List   | No data available                    |
| Chemical Test Rules  | Chemical analysis report is attached |
| Section 16 : Additional Information  |                                      |
| This product is not bioactive, non-radioactive. It is for R and D use only. Not for drug, household or other uses. |                                      |

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge. It does not represent any guarantee of the product.