SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Safety data sheet number PD-MSDS-00036
Product Name OMNigene Gut OM-200, OMR-200, OM-2XX, OMR-2XX, OMD-200 - Stabilization of DNA
Pure substance/mixture Mixture

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

Recommended use For nucleic acid stabilization
Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Manufacturer DNA Genotek Inc., 500 Palladium Dr., Suite 3000, Ottawa, ON, Canada, K2V 1C2
For further information, please contact
E-mail address support@dnagenotek.com

1.4. Emergency telephone number

Emergency Telephone 1-866-813-6354

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

<table>
<thead>
<tr>
<th>Hazard Class</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2 - (H315)</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2 - (H319)</td>
</tr>
<tr>
<td>Flammable liquids</td>
<td>Category 3 - (H226)</td>
</tr>
</tbody>
</table>

2.2. Label elements

Signal word Warning

Hazard statements
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H226 - Flammable liquid and vapor
Precautionary Statements - EU (§28, 1272/2008)
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P264 - Wash face, hands and any exposed skin thoroughly after handling
P321 - Specific treatment (see .? on this label)
P337 + P313 - If eye irritation persists: Get medical advice/attention
P370 + P378 - In case of fire: Use dry chemical, CO2, water spray or alcohol-resistant foam to extinguish
P403 + P235 - Store in a well-ventilated place. Keep cool

2.3. Other hazards
Harmful to aquatic life.

SECTION 3: Composition/information on ingredients

3.1 Substances
Not applicable

3.2 Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Weight-%</th>
<th>REACH registration number</th>
<th>EC No</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Specific concentration limit (SCL)</th>
<th>M-Factor</th>
<th>M-Factor (long-term)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide 1310-73-2</td>
<td>&lt;1</td>
<td>No data available</td>
<td>215-185-5</td>
<td>Skin Corr. 1A (H314)</td>
<td>Eye Irrit. 2 :: 0.5%&lt;=C&lt;2% Skin Corr. 1A :: C&gt;=5% Skin Corr. 1B :: 2%&lt;=C&lt;5% Skin Irrit. 2 :: 0.5%&lt;=C&lt;2%</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate
If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50 - 4 hour - dust/mist - mg/L</th>
<th>Inhalation LC50 - 4 hour - vapor - mg/L</th>
<th>Inhalation LC50 - 4 hour - gas - ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide 1310-73-2</td>
<td>325</td>
<td>1350</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures
General advice
Show this safety data sheet to the doctor in attendance.
**Inhalation**
Remove to fresh air. Get medical attention immediately if symptoms occur.

**Eye contact**
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

**Skin contact**
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.

**Ingestion**
Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

**Self-protection of the first aider**
Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing.

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

**Symptoms**
May cause redness and tearing of the eyes. Burning sensation.

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

**Note to physicians**
Treat symptomatically.

---

**SECTION 5: Firefighting measures**

5.1. **Extinguishing media**

**Suitable Extinguishing Media**
Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.

**Large Fire**
CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media**
Do not scatter spilled material with high pressure water streams.

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

**Specific hazards arising from the chemical**
Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

5.3. **Advice for firefighters**

**Special protective equipment and precautions for fire-fighters**
Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

---

**SECTION 6: Accidental release measures**

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

**Personal precautions**
Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material.

**Other information**
Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

**For emergency responders**
Use personal protection recommended in Section 8.
6.2. Environmental precautions
Environmental precautions
Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

6.3. Methods and material for containment and cleaning up
Methods for containment
Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up
Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards
Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections
Reference to other sections
See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Advice on safe handling
Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

General hygiene considerations
Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.

7.2. Conditions for safe storage, including any incompatibilities
Storage Conditions
Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

7.3. Specific end use(s)
Risk Management Methods (RMM)
The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Exposure Limits
Biological occupational exposure limits
This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL)  No information available.
Predicted No Effect Concentration (PNEC)  No information available.

8.2. Exposure controls

Personal protective equipment

Eye/face protection  Tight sealing safety goggles.
Hand protection  Wear suitable gloves. Impervious gloves.
Skin and body protection  Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.
Respiratory protection  No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations  Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing.
Environmental exposure controls  No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state  Liquid
Color  No information available
### Odor and Odor threshold

Odor: No information available.
Odor threshold: No information available.

#### Property Values

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point / freezing point</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Flammability</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Upper flammability or explosive limits</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Lower flammability or explosive limits</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>= 24 °C</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>= 10.9</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>pH (as aqueous solution)</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Bulk density</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Liquid Density</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>No data available</td>
<td>None known</td>
<td></td>
</tr>
</tbody>
</table>

#### 9.2. Other information

9.2.1. Information with regard to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

### SECTION 10: Stability and Reactivity

#### 10.1. Reactivity

Reactivity: No information available.

#### 10.2. Chemical stability

Stability: Stable under normal conditions.

Explosion data:
- Sensitivity to mechanical impact: None.
- Sensitivity to static discharge: Yes.

#### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions: None under normal processing.

#### 10.4. Conditions to avoid

Conditions to avoid: Heat, flames and sparks.
10.5. Incompatible materials


10.6. Hazardous decomposition products

Hazardous decomposition products: None known based on information supplied.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation: Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Eye contact: Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.

Skin contact: Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).

Ingestion: Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms: Redness. May cause redness and tearing of the eyes.

Acute toxicity

Numerical measures of toxicity

No information available

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 36,205.10 mg/kg
ATEmix (inhalation-dust/mist) 599.50 mg/l

Component Information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>= 325 mg/kg (Rat)</td>
<td>= 1350 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
</tbody>
</table>

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation: Classification based on data available for ingredients. Irritating to skin.

Serious eye damage/eye irritation: Classification based on data available for ingredients. Causes serious eye irritation.

Respiratory or skin sensitization: No information available.

Germ cell mutagenicity: No information available.

Carcinogenicity: No information available.
Reproductive toxicity  No information available.

STOT - single exposure  No information available.

STOT - repeated exposure  No information available.

Aspiration hazard  No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties  No information available.

11.2.2. Other information

Other adverse effects  No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity  Harmful to aquatic life.

Unknown aquatic toxicity  Contains 0.3 % of components with unknown hazards to the aquatic environment.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>-</td>
<td>LC50: =45.4mg/L (96h, Oncorhynchus mykiss)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

Persistence and degradability  No information available.

12.3. Bioaccumulative potential

Bioaccumulation  There is no data for this product.

12.4. Mobility in soil

Mobility in soil  No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>PBT and vPvB assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>The substance is not PBT / vPvB PBT assessment does not apply</td>
</tr>
</tbody>
</table>

12.6. Endocrine disrupting properties
Endocrine disrupting properties

No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products

Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging

Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number

UN 1824

14.2 UN proper shipping name

Not regulated

14.3 Transport hazard class(es)

Not regulated

14.4 Packing group

III

14.5 Environmental hazards

Not applicable

14.6 Special precautions for user

Special Provisions

None

IMDG

14.1 UN number or ID number

Not regulated

14.2 UN proper shipping name

Not regulated

14.3 Transport hazard class(es)

Not regulated

14.4 Packing group

Not regulated

14.5 Environmental hazards

Not applicable

14.6 Special precautions for user

Special Provisions

None

14.7 Maritime transport in bulk according to IMO instruments

No information available

RID

14.1 UN number or ID number

Not regulated

14.2 UN proper shipping name

Not regulated

14.3 Transport hazard class(es)

Not regulated

14.4 Packing group

Not regulated

14.5 Environmental hazards

Not applicable

14.6 Special precautions for user

Special Provisions

None

ADR

14.1 UN number or ID number

Not regulated

14.2 UN proper shipping name

Not regulated

14.3 Transport hazard class(es)

Not regulated

14.4 Packing group

Not regulated

14.5 Environmental hazards

Not applicable

14.6 Special precautions for user

Special Provisions

None

SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Restricted substance per REACH Annex XVII</th>
<th>Substance subject to authorization per REACH Annex XIV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide - 1310-73-2</td>
<td>75.</td>
<td>-</td>
</tr>
</tbody>
</table>

Persistent Organic Pollutants

Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

P5a - FLAMMABLE LIQUIDS
P5b - FLAMMABLE LIQUIDS
P5c - FLAMMABLE LIQUIDS

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Contact supplier for inventory compliance status</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Contact supplier for inventory compliance status</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Contact supplier for inventory compliance status</td>
</tr>
<tr>
<td>ENCS</td>
<td>Contact supplier for inventory compliance status</td>
</tr>
<tr>
<td>IECSC</td>
<td>Contact supplier for inventory compliance status</td>
</tr>
<tr>
<td>KECL</td>
<td>Contact supplier for inventory compliance status</td>
</tr>
<tr>
<td>PICCS</td>
<td>Contact supplier for inventory compliance status</td>
</tr>
<tr>
<td>AIIC</td>
<td>Contact supplier for inventory compliance status</td>
</tr>
</tbody>
</table>

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- AIIC - Australian Inventory of Industrial Chemicals

15.2. Chemical safety assessment

Chemical Safety Report

No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet
Full text of H-Statements referred to under section 3
H314 - Causes severe skin burns and eye damage

Legend
SVHC: Substances of Very High Concern for Authorization:

Legend  Section 8: Exposure controls/personal protection
TWA  TWA (time-weighted average)  STEL  STEL (Short Term Exposure Limit)
Ceiling  Maximum limit value  Skin designation

Classification procedure
Classification according to Regulation (EC) No. 1272/2008 [CLP]  Method Used
Acute oral toxicity  Calculation method
Acute dermal toxicity  Calculation method
Acute inhalation toxicity - gas  Calculation method
Acute inhalation toxicity - vapor  Calculation method
Acute inhalation toxicity - dust/mist  Calculation method
Skin corrosion/irritation  Calculation method
Serious eye damage/eye irritation  Calculation method
Respiratory sensitization  Calculation method
Skin sensitization  Calculation method
Mutagenicity  Calculation method
Carcinogenicity  Calculation method
Reproductive toxicity  Calculation method
STOT - single exposure  Calculation method
STOT - repeated exposure  Calculation method
Acute aquatic toxicity  Calculation method
Chronic aquatic toxicity  Calculation method
Aspiration hazard  Calculation method
Ozone  Calculation method

Key literature references and sources for data used to compile the SDS
Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLMPUBMED)
National Library of Medicine's PubMed database (NLMPUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 20-Jun-2022

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

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.

End of Safety Data Sheet