SAFETY DATA SHEET

1. Identification
Product identifier Nitroglycerin Lingual Aerosol
Other means of identification Not available.
Recommended use Prevention or relief from a sudden attack of angina (chest pain) caused by heart attack.
Recommended restrictions None known.
Manufacturer/Importer/Supplier/Distributor information
Manufacturer: Rouses Point Pharmaceuticals, LLC
11 Commerce Drive
Cranford, NJ 07016
Emergency Telephone: 1-908-372-0506

2. Hazard(s) identification
Physical hazards Flammable aerosols Category 2
Health hazards Acute toxicity, dermal Category 3
Specific target organ toxicity, repeated exposure Category 2 (Blood, Skin, Central nervous system, Cardiovascular system)
OSHA defined hazards Not classified.
Label elements
- Signal word Danger
- Hazard statement Flammable aerosol. Toxic in contact with skin. May cause damage to organs (blood, skin, central nervous system, cardiovascular system) through prolonged or repeated exposure.
- Precautionary statement
  - Prevention Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Protect from sunlight. Do not breathe vapor/spray.
  -Response If on skin: Wash with plenty of water. Call a poison center/doctor if you feel unwell. Take off contaminated clothing and wash before reuse.
- Storage Store locked up.
- Disposal Dispose of contents in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients
Mixtures
<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isobutane</td>
<td>75-28-5</td>
<td>58.5 - 60.3</td>
</tr>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>6.5 - 6.7</td>
</tr>
<tr>
<td>Nitroglycerin</td>
<td>55-63-0</td>
<td>0.5 - 2</td>
</tr>
</tbody>
</table>

4. First-aid measures
Inhalation If symptomatic, move to fresh air. Get medical attention if symptoms persist.
Skin contact Wash with soap and water. Get medical advice/attention if you feel unwell.
Eye contact Immediately flush with plenty of water for at least 15 minutes. Hold eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Ingestion
Seek medical advice.

Most important symptoms/effects, acute and delayed
Toxic in contact with skin. May cause skin irritation on prolonged or repeated contact. May cause eye irritation on direct contact. May cause damage to organs (blood, skin, central nervous system, cardiovascular system) through prolonged or repeated exposure.

Indication of immediate medical attention and special treatment needed
Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing media
None known.

Specific hazards arising from the chemical
Aerosol cans may explode in a fire. Thermal decomposition or combustion may liberate toxic gases or fumes.

Special protective equipment and precautions for firefighters
Use water spray to keep fire-exposed containers cool.

Fire-fighting equipment/instructions
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Wear protective clothing as described in Section 8 of this safety data sheet.

Methods and materials for containment and cleaning up
Absorb spill with vermiculite or other inert material, then place in a sealed container for chemical waste.

Large Spills: Flush area with water. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.

Environmental precautions
Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling
Keep away from heat, sparks and open flame. Do not breathe mist or vapor. Do not get on skin and clothing. Avoid contact with eyes. Use only with adequate ventilation. Wash thoroughly after handling. Observe good industrial hygiene practices. Pressurized container: Do not pierce or burn, even after use.

Conditions for safe storage, including any incompatibilities
Keep container closed. Keep cool. Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitroglycerin (CAS 55-63-0)</td>
<td>Ceiling</td>
<td>2 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.2 ppm</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butane (CAS 106-97-8)</td>
<td>STEL</td>
<td>1000 ppm</td>
</tr>
<tr>
<td>Isobutane (CAS 75-28-5)</td>
<td>STEL</td>
<td>1000 ppm</td>
</tr>
<tr>
<td>Nitroglycerin (CAS 55-63-0)</td>
<td>TWA</td>
<td>0.05 ppm</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butane (CAS 106-97-8)</td>
<td>TWA</td>
<td>1900 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>800 ppm</td>
</tr>
<tr>
<td>Isobutane (CAS 75-28-5)</td>
<td>TWA</td>
<td>1900 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>800 ppm</td>
</tr>
<tr>
<td>Nitroglycerin (CAS 55-63-0)</td>
<td>STEL</td>
<td>0.1 mg/m3</td>
</tr>
</tbody>
</table>

Biological limit values
No biological exposure limits noted for the ingredient(s).
Exposure guidelines

US - California OELs: Skin designation
Nitroglycerin (CAS 55-63-0) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies
Nitroglycerin (CAS 55-63-0) Skin designation applies.

US - Tenness OELs: Skin designation
Nitroglycerin (CAS 55-63-0) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation
Nitroglycerin (CAS 55-63-0) Can be absorbed through the skin.

US. NIOSH: Pocket Guide to Chemical Hazards
Nitroglycerin (CAS 55-63-0) Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
Nitroglycerin (CAS 55-63-0) Can be absorbed through the skin.

Appropriate engineering controls
Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin protection
Hand protection
Chemical resistant gloves are recommended.

Other
Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory protection
If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Thermal hazards
Not applicable.

General hygiene considerations
Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance
Aerosol.

Physical state
Liquid.

Form
Liquid (aerosolized).

Color
Clear, colorless to slight yellow.

Odor
None.

Odor threshold
Not available.

pH
Not available.

Melting point/freezing point
Not available.

Initial boiling point and boiling range
Not available.

Flash point
Not available.

Evaporation rate
Not available.

Flammability (solid, gas)
Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)
Not available.

Flammability limit - upper (%)
Not available.

Vapor pressure
Not available.

Vapor density
Not available.

Relative density
Not available.
Solubility(ies)

Solubility (water) Insoluble.

Partition coefficient (n-octanol/water) No data available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Stable under the prescribed storage conditions.

Possibility of hazardous reactions Hazardous polymerization will not occur.

Conditions to avoid Pressurized container: Must not be exposed for temperatures above 50°C.

Incompatible materials Strong oxidizing agents. Acids.


11. Toxicological information

Information on likely routes of exposure

Ingestion May be harmful if swallowed.

Inhalation In high concentrations, mists/vapors may irritate throat and respiratory system and cause coughing.

Skin contact Toxic in contact with skin.

Eye contact May cause eye irritation on direct contact.

Symptoms related to the physical, chemical and toxicological characteristics May cause skin irritation on prolonged or repeated contact. May cause eye irritation on direct contact. May cause damage to organs (blood, skin, central nervous system, cardiovascular system) through prolonged or repeated exposure.

Information on toxicological effects

Acute toxicity Toxic in contact with skin. May be harmful if swallowed.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butane (CAS 106-97-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>Rat</td>
<td>&gt; 13023 ppm, 4 Hours</td>
</tr>
<tr>
<td>LC50</td>
<td>658 mg/l, 4 Hours</td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>&gt; 3990 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isobutane (CAS 75-28-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>Mouse</td>
<td>1237 mg/l, 2 Hours</td>
</tr>
<tr>
<td>LC50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nitroglycerin (CAS 55-63-0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rat</td>
<td>&gt; 9 mg/kg</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Mouse</td>
<td>1055 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>685 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation May cause skin irritation on prolonged or repeated contact.
Serious eye damage/eye irritation
May cause eye irritation on direct contact.

Respiratory or skin sensitization
Respiratory sensitization
Not assigned.
Skin sensitization
Not assigned.

Germ cell mutagenicity
Not assigned.
Carcinogenicity
Not assigned.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.

Reproductive toxicity
Not assigned.
Specific target organ toxicity - single exposure
Not assigned.
Specific target organ toxicity - repeated exposure
May cause damage to organs (blood, skin, central nervous system, cardiovascular system) through prolonged or repeated exposure.

Aspiration hazard
Not applicable.

12. Ecological information
Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitroglycerin (CAS 55-63-0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia magna)</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Bluegill (Lepomis macrochirus)</td>
</tr>
</tbody>
</table>

Persistence and degradability
No data available.

Bioaccumulative potential
Not available.

Partition coefficient n-octanol / water (log Kow)
Butane (CAS 106-97-8)
2.89
Isobutane (CAS 75-28-5)
2.8, at 20 °C
Nitroglycerin (CAS 55-63-0)
1.62

Bioconcentration factor (BCF)
Isobutane (CAS 75-28-5)
30.8, L/kg wet weight

Mobility in soil
Not available.

Other adverse effects
Not available.

13. Disposal considerations
Disposal instructions
Do not discharge into drains, water courses or onto the ground.

Local disposal regulations
Dispose in accordance with all applicable regulations.

Hazardous waste code
The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

US RCRA Hazardous Waste P List: Reference
Nitroglycerin (CAS 55-63-0) P081
Waste from residues / unused products
Recover and recycle, if practical.

Contaminated packaging
Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information
DOT
UN number UN1950
UN proper shipping name Aerosols, flammable
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Label(s) 2.1
Packing group: Not applicable.
Environmental hazards:
  Marine pollutant: Yes
Special precautions for user: Not available.
Special provisions: N82
Packaging exceptions: 306
Packaging non bulk: None
Packaging bulk: None

IATA
UN number: UN1950
UN proper shipping name: Aerosols, flammable
Transport hazard class(es):
  Class: 2.1
  Subsidiary risk: -
Packing group: Not applicable.
Environmental hazards: No.
ERG Code: 10L
Special precautions for user: Not available.

IMDG
UN number: UN1950
UN proper shipping name: AEROSOLS, flammable
Transport hazard class(es):
  Class: 2
  Subsidiary risk: -
Packing group: Not applicable.
Environmental hazards:
  Marine pollutant: Yes
EmS: Not available.
Special precautions for user: Not available.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: This substance/mixture is not intended to be transported in bulk.

15. Regulatory information
US federal regulations: This product is hazardous according to OSHA 29 CFR 1910.1200.
CERCLA Hazardous Substance List (40 CFR 302.4): Butane (CAS 106-97-8) LISTED, Isobutane (CAS 75-28-5) LISTED, Nitroglycerin (CAS 55-63-0) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories:
  Immediate Hazard: Yes
  Delayed Hazard: Yes
  Fire Hazard: Yes
  Pressure Hazard: No
  Reactivity Hazard: No
SARA 302 Extremely hazardous substance: Not listed.
SARA 311/312 Hazardous chemical: Yes
SARA 313 (TRI reporting):
<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitroglycerin</td>
<td>55-63-0</td>
<td>0.5 - 2</td>
</tr>
</tbody>
</table>
Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Butane (CAS 106-97-8)
Isobutane (CAS 75-28-5)

Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

US. Massachusetts RTK - Substance List
Butane (CAS 106-97-8)
Isobutane (CAS 75-28-5)
Nitroglycerin (CAS 55-63-0)

US. New Jersey Worker and Community Right-to-Know Act
Butane (CAS 106-97-8)
Isobutane (CAS 75-28-5)
Nitroglycerin (CAS 55-63-0)

US. Pennsylvania Worker and Community Right-to-Know Law
Butane (CAS 106-97-8)
Isobutane (CAS 75-28-5)
Nitroglycerin (CAS 55-63-0)

US. Rhode Island RTK
Butane (CAS 106-97-8)
Isobutane (CAS 75-28-5)
Nitroglycerin (CAS 55-63-0)

US. California Proposition 65
US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
Not listed.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date: 14-August-2014
Revision date: -
Version #: 01
Further information: The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.
NFPA ratings

Disclaimer

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.