SAFETY DATA SHEET

Oxytetracycline Formulation

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Oxytetracycline Formulation

Manufacturer or supplier’s details
Company: MSD
Address: Rua Coronel Bento Soares, 530
         Cruzeiro - Sao Paulo - Brazil  CEP 12730-340
Telephone: 908-740-4000
Emergency telephone: 1-908-423-6000
E-mail address: EHSDATASTEWARD@msd.com
Telefax: 908-735-1496

Recommended use of the chemical and restrictions on use
Recommended use: Veterinary product

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification in accordance with ABNT NBR 14725 Standard
Aerosols: Category 2
Eye irritation: Category 2A
Skin sensitization: Category 1
Reproductive toxicity: Category 1A
Specific target organ toxicity - single exposure: Category 3
Short-term (acute) aquatic hazard: Category 1
Long-term (chronic) aquatic hazard: Category 1

GHS label elements in accordance with ABNT NBR 14725 Standard
Hazard pictograms:
- Flammable
- Corrosive
- Toxic
- Aquatic hazard

Signal Word: Danger
Hazard Statements: H223 Flammable aerosol.
H229 Pressurised container: May burst if heated.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H360D May damage the unborn child.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention:
P201 Obtain special instructions before use.
P210 Keep away from heat/ sparks/ open flames/ hot surfaces.
No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P391 Collect spillage.

Storage:
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Other hazards which do not result in classification
May displace oxygen and cause rapid suffocation.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

Components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Classification</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>Flammable gases, Category 1 Gases under pressure, Liquefied gas Specific target organ toxicity - single exposure, Category 3</td>
<td>&gt;= 20 &lt;- 30</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>67-63-0</td>
<td>Flammable liquids, Category 2 Eye irritation, Category 2A Specific target organ toxicity - single exposure, Category 3</td>
<td>&gt;= 10 &lt;- 20</td>
</tr>
<tr>
<td>Isobutane</td>
<td>75-28-5</td>
<td>Flammable gases, Category 1 Gases under pressure, Liquefied gas Specific target organ</td>
<td>&gt;= 10 &lt;- 20</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET

Oxytetracycline Formulation

SECTION 4. FIRST AID MEASURES

General advice: In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.

If inhaled: If inhaled, remove to fresh air. Get medical attention.

In case of skin contact: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

In case of eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention.

If swallowed: If swallowed, DO NOT induce vomiting. Get medical attention. Rinse mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed: Gastrointestinal disturbance

Notes to physician: Treat symptomatically and supportively.
SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water spray, Alcohol-resistant foam, Carbon dioxide (CO2), Dry chemical.

Unsuitable extinguishing media: None known.

Specific hazards during fire fighting: Flash back possible over considerable distance. Vapors may form explosive mixtures with air. Exposure to combustion products may be a hazard to health. If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.

Hazardous combustion products: Carbon oxides.

Specific extinguishing methods: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

Special protective equipment for fire-fighters: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Evacuate personnel to safe areas. Remove all sources of ignition. Ventilate the area. Use personal protective equipment. Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g., by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up: Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/vapors/mists with a water spray jet. For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items.
employed in the cleanup of releases. You will need to determine which regulations are applicable. Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation. If advised by assessment of the local exposure potential, use only in an area equipped with explosion-proof exhaust ventilation.

Advice on safe handling : Do not get on skin or clothing. Avoid breathing spray. Do not swallow. Do not get in eyes. Wash skin thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment. Do not spray on an open flame or other ignition source.

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before re-use.

Conditions for safe storage : Store locked up. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Do not pierce or burn, even after use. Keep cool. Protect from sunlight.

Materials to avoid : Do not store with the following product types: Self-reactive substances and mixtures Organic peroxides Oxidizing agents Flammable solids Pyrophoric liquids Pyrophoric solids Self-heating substances and mixtures Substances and mixtures which in contact with water emit flammable gases Explosives Gases
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butane</td>
<td>106-97-8</td>
<td>LT</td>
<td>470 ppm 1.090 mg/m³</td>
<td>BR OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STEL 1.000 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Propan-2-ol</td>
<td>67-63-0</td>
<td>LT</td>
<td>310 ppm 765 mg/m³</td>
<td>BR OEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STEL 1.000 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Isobutane</td>
<td>75-28-5</td>
<td>STEL</td>
<td>1.000 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Oxytetracycline</td>
<td>79-57-2</td>
<td>TWA</td>
<td>500 µg/m³ (OEB 2)</td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Wipe limit 100 µg/100 cm²</td>
<td>Internal</td>
</tr>
</tbody>
</table>

**Biological occupational exposure limits**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Biological specimen</th>
<th>Sampling time</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propan-2-ol</td>
<td>67-63-0</td>
<td>Acetone</td>
<td>Urine</td>
<td>End of shift at end of work-week</td>
<td>40 mg/l</td>
<td>ACGIH BEI</td>
</tr>
</tbody>
</table>

**Personal protective equipment**

Respiratory protection: If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type: Self-contained breathing apparatus

Hand protection: Take note that the product is flammable, which may impact the selection of hand protection.

**Skin and body protection**: Skin should be washed after contact.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Aerosol containing a liquefied gas

Color: blue

Odor: solvent
Odor Threshold : No data available
pH : No data available
Melting point/freezing point : No data available
Initial boiling point and boiling range : No data available
Flash point : -80 °C
Evaporation rate : No data available
Flammability (solid, gas) : Flammable aerosol.
Flammability (liquids) : Not applicable
Upper explosion limit / Upper flammability limit : 9.5 %(V)
Lower explosion limit / Lower flammability limit : 1.8 %(V)
Vapor pressure : No data available
Relative vapor density : No data available
Relative density : No data available
Density : 0.92 g/cm³
Solubility(ies)
Water solubility : No data available
Partition coefficient: n-octanol/water : No data available
Autoignition temperature : No data available
Decomposition temperature : No data available
Viscosity
Viscosity, kinematic : No data available
Explosive properties : Not explosive
Oxidizing properties : The substance or mixture is not classified as oxidizing.
Particle size : No data available

SECTION 10. STABILITY AND REACTIVITY
Reactivity : Not classified as a reactivity hazard.
SAFETY DATA SHEET

Oxytetracycline Formulation

Chemical stability
Possibility of hazardous reactions
Conditions to avoid
Incompatible materials
Hazardous decomposition products

Stable under normal conditions.
Flammable aerosol.
Vapors may form explosive mixture with air.
If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.
Can react with strong oxidizing agents.

Heat, flames and sparks.
Oxidizing agents
No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:
Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity
Not classified based on available information.

Components:

**Butane:**
Acute inhalation toxicity
LC50 (Rat): 570000 ppm
Exposure time: 15 min
Test atmosphere: gas
Remarks: Based on data from similar materials

**Propan-2-ol:**
Acute oral toxicity
LD50 (Rat): > 5.000 mg/kg

Acute inhalation toxicity
LC50 (Rat): > 25 mg/l
Exposure time: 6 h
Test atmosphere: vapor

Acute dermal toxicity
LD50 (Rabbit): > 5.000 mg/kg

**Isobutane:**
Acute inhalation toxicity
LC50 (Rat): 570000 ppm
Exposure time: 15 min
Test atmosphere: gas

**Propane:**
Acute inhalation toxicity
LC50 (Rat): > 800000 ppm
Exposure time: 15 min
Test atmosphere: gas

**Oxytetracycline:**
Acute oral toxicity
LD50 (Rat): 4.800 mg/kg
LD50 (Mouse): 2.240 mg/kg
Remarks: Evidence of phototoxicity was observed

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Acute toxicity (other routes of administration) : LD50 (Rat): 4.840 mg/kg
Application Route: Intramuscular
LD50 (Mouse): 3.500 mg/kg
Application Route: Subcutaneous

Skin corrosion/irritation
Not classified based on available information.

Components:
Propan-2-ol:
Species : Rabbit
Result : No skin irritation

Oxytetracycline:
Remarks : No data available

Serious eye damage/eye irritation
Causes serious eye irritation.

Components:
Propan-2-ol:
Species : Rabbit
Result : Irritation to eyes, reversing within 21 days

Oxytetracycline:
Remarks : No data available

Respiratory or skin sensitization

Skin sensitization
May cause an allergic skin reaction.

Respiratory sensitization
Not classified based on available information.

Components:
Propan-2-ol:
Test Type : Buehler Test
Routes of exposure : Skin contact
Species : Guinea pig
Method : OECD Test Guideline 406
Result : negative
Oxytetracycline

Test Type: Human repeat insult patch test (HRIPT)
Result: Sensitizer

Germ cell mutagenicity
Not classified based on available information.

Components:

Butane:
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative

Genotoxicity in vivo: Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Rat
Application Route: inhalation (gas)
Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

Propan-2-ol:
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Test Type: In vitro mammalian cell gene mutation test
Result: negative

Genotoxicity in vivo: Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Intraperitoneal injection
Result: negative

Isobutane:
Genotoxicity in vitro: Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative
Remarks: Based on data from similar materials
Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo: Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Rat
Application Route: inhalation (gas)
SAFETY DATA SHEET

Oxytetracycline Formulation

Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

Propane:
Genotoxicity in vitro: Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo: Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Rat
Application Route: inhalation (gas)
Method: OECD Test Guideline 474
Result: negative
Remarks: Based on data from similar materials

Oxytetracycline:
Genotoxicity in vitro: Test Type: Microbial mutagenesis assay (Ames test)
Result: negative
Test Type: Mouse Lymphoma
Metabolic activation: Metabolic activation
Result: positive
Test Type: sister chromatid exchange assay
Test system: Chinese hamster ovary cells
Result: equivocal
Test Type: Chromosomal aberration
Result: negative

Genotoxicity in vivo: Test Type: Micronucleus test
Species: Mouse
Cell type: Bone marrow
Application Route: Oral
Result: equivocal
Test Type: in vivo assay
Species: Mouse
Application Route: Intraperitoneal injection
Result: negative

Germ cell mutagenicity - Assessment: Weight of evidence does not support classification as a germ cell mutagen.

Carcinogenicity
Not classified based on available information.

Components:
Propan-2-ol:
Species: Rat
**Oxytetracycline Formulation**

<table>
<thead>
<tr>
<th>Application Route</th>
<th>Method</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>inhalation (vapor)</td>
<td>OECD Test Guideline 451</td>
<td>negative</td>
</tr>
</tbody>
</table>

**Oxytetracycline:**

**Species:** Mouse  
**Application Route:** Oral  
**Exposure time:** 104 weeks  
**Result:** negative

**Species:** Rat  
**Application Route:** Oral  
**Exposure time:** 103 weeks  
**Result:** equivocal

**Target Organs:** Adrenal gland, Pituitary gland  
**Remarks:** The mechanism or mode of action may not be relevant in humans.

**Carcinogenicity - Assessment:** Weight of evidence does not support classification as a carcinogen

**Reproductive toxicity**

May damage the unborn child.

**Components:**

**Butane:**

**Effects on fertility**

Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: inhalation (gas)  
Method: OECD Test Guideline 422  
Result: negative

**Effects on fetal development**

Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: inhalation (gas)  
Method: OECD Test Guideline 422  
Result: negative

**Propan-2-ol:**

**Effects on fertility**

Test Type: Two-generation reproduction toxicity study  
Species: Rat  
Application Route: Ingestion  
Result: negative

**Effects on fetal development**

Test Type: Embryo-fetal development  
Species: Rat  
Application Route: Ingestion  
Result: negative
### Isobutane:

**Effects on fertility**: Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: inhalation (gas)  
Method: OECD Test Guideline 422  
Result: negative

**Effects on fetal development**: Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: inhalation (gas)  
Method: OECD Test Guideline 422  
Result: negative

### Propane:

**Effects on fertility**: Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: inhalation (gas)  
Method: OECD Test Guideline 422  
Result: negative

**Effects on fetal development**: Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test  
Species: Rat  
Application Route: inhalation (gas)  
Method: OECD Test Guideline 422  
Result: negative

### Oxytetracycline:

**Effects on fertility**: Test Type: Two-generation reproduction toxicity study  
Species: Rat  
Application Route: Oral  
Fertility: NOAEL: 18 mg/kg body weight  
Result: No effects on fertility., No effect on reproduction capacity., No significant adverse effects were reported

**Effects on fetal development**: Test Type: Embryo-fetal development  
Species: Rat  
Application Route: Oral  
Embryo-fetal toxicity.: LOAEL: 48 mg/kg body weight  

Test Type: Embryo-fetal development  
Species: Rat  
Application Route: Oral  
General Toxicity Maternal: LOAEL: 1.200 mg/kg body weight  
Embryo-fetal toxicity.: NOAEL: 1.500 mg/kg body weight  
Result: No teratogenic effects.  
Remarks: Maternal toxicity observed.

Test Type: Embryo-fetal development
Species: Mouse
Application Route: Oral
General Toxicity Maternal: LOAEL: 1.325 mg/kg body weight
Embryo-fetal toxicity: NOAEL: 2.100 mg/kg body weight
Result: No teratogenic effects.
Remarks: Maternal toxicity observed.

Test Type: Embryo-fetal development
Species: Rabbit
Application Route: Intramuscular
Embryo-fetal toxicity: LOAEL: 41.5 mg/kg body weight
Result: Postimplantation loss., No fetal abnormalities.

Test Type: Embryo-fetal development
Species: Dog
Application Route: Intramuscular
Embryo-fetal toxicity: LOAEL: 20.75 mg/kg body weight
Result: Skeletal and visceral variations ., Postimplantation loss.

Reproductive toxicity - Assessment : Positive evidence of adverse effects on development from human epidemiological studies.

STOT-single exposure
May cause drowsiness or dizziness.

Components:

Butane:
Assessment : May cause drowsiness or dizziness.
Remarks : Based on data from similar materials

Propan-2-ol:
Assessment : May cause drowsiness or dizziness.

Isobutane:
Assessment : May cause drowsiness or dizziness.

Propane:
Assessment : May cause drowsiness or dizziness.

STOT-repeated exposure
Not classified based on available information.

Repeated dose toxicity

Components:

Butane:
Species : Rat
NOAEL : >= 9000 ppm
Application Route : inhalation (gas)
Exposure time : 6 Weeks  
Method : OECD Test Guideline 422

Propan-2-ol:  
Species : Rat  
NOAEL : 12.5 mg/l  
Application Route : inhalation (vapor)  
Exposure time : 104 Weeks

Isobutane:  
Species : Rat  
NOAEL : >= 9000 ppm  
Application Route : inhalation (gas)  
Exposure time : 6 Weeks  
Method : OECD Test Guideline 422

Propane:  
Species : Rat  
NOAEL : 7.214 mg/l  
Application Route : inhalation (gas)  
Exposure time : 6 Weeks  
Method : OECD Test Guideline 422

Oxytetracycline:  
Species : Rat  
LOAEL : 198 mg/kg  
Application Route : Oral  
Exposure time : 13 Weeks  
Target Organs : Bone  
Remarks : No significant adverse effects were reported

Species : Mouse  
LOAEL : 7.990 mg/kg  
Application Route : Oral  
Exposure time : 13 Weeks  
Target Organs : Bone  
Remarks : No significant adverse effects were reported

Species : Dog  
NOAEL : 125 mg/kg  
LOAEL : 250 mg/kg  
Application Route : Oral  
Exposure time : 12 Months  
Target Organs : Testis  
Remarks : Significant toxicity observed in testing

Species : Rat  
NOAEL : 40 mg/kg  
LOAEL : 100 mg/kg  
Application Route : Intraperitoneal  
Exposure time : 14 Days  
Target Organs : Kidney
Aspiration toxicity
Not classified based on available information.

Experience with human exposure

Components:

Oxytetracycline:
Ingestion:
Symptoms: Gastrointestinal disturbance, tooth discoloration
Remarks: May cause birth defects.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Propan-2-ol:
Toxicity to fish:
LC50 (Pimephales promelas (fathead minnow)): 9.640 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:
EC50 (Daphnia magna (Water flea)): > 10.000 mg/l  
Exposure time: 24 h

Toxicity to microorganisms:
EC50 (Pseudomonas putida): > 1.050 mg/l
Exposure time: 16 h

Oxytetracycline:
Toxicity to fish:
LC50 (Oryzias latipes (Japanese medaka)): 110 mg/l  
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates:
EC50 (Daphnia magna (Water flea)): 621 mg/l  
Exposure time: 48 h
Method: OECD Test Guideline 202

EC50 (Daphnia magna (Water flea)): 669 mg/l  
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants:
EC50 (Anabaena): 0,032 mg/l
Exposure time: 72 h
NOEC (Anabaena): 0,0031 mg/l
Exposure time: 72 h

M-Factor (Acute aquatic toxicity):
10

M-Factor (Chronic aquatic toxicity):
10

Toxicity to microorganisms:
EC50: 17,9 mg/l
Exposure time: 3 h
Test Type: Respiration inhibition  
Method: OECD Test Guideline 209

NOEC: 0,2 mg/l  
Exposure time: 3 h  
Test Type: Respiration inhibition  
Method: OECD Test Guideline 209

### Persistence and degradability

#### Components:

**Butane:**
- Biodegradability: Result: Readily biodegradable.  
- Remarks: Based on data from similar materials

**Propan-2-ol:**
- Biodegradability: Result: rapidly degradable
- BOD/COD: BOD: 1.19 (BOD5)COD: 2.23BOD/COD: 53 %

**Isobutane:**
- Biodegradability: Result: Readily biodegradable.  
- Remarks: Based on data from similar materials

**Propane:**
- Biodegradability: Result: Readily biodegradable.  
- Remarks: Based on data from similar materials

### Bioaccumulative potential

#### Components:

**Butane:**
- Partition coefficient: n-octanol/water: log Pow: 2,89

**Propan-2-ol:**
- Partition coefficient: n-octanol/water: log Pow: 0,05

**Isobutane:**
- Partition coefficient: n-octanol/water: log Pow: 2,8

**Propane:**
- Partition coefficient: n-octanol/water: log Pow: 2,36

### Mobility in soil

No data available
SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues: Dispose of in accordance with local regulations.
Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal. Empty containers retain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death. If not otherwise specified: Dispose of as unused product. Please ensure aerosol cans are sprayed completely empty (including propellant).

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG
UN number: UN 1950
Proper shipping name: AEROSOLS
Class: 2.1
Packing group: Not assigned by regulation
Labels: 2.1

IATA-DGR
UN/ID No.: UN 1950
Proper shipping name: Aerosols, flammable
Class: 2.1
Packing group: Not assigned by regulation
Labels: Flammable Gas
Packing instruction (cargo aircraft): 203
Packing instruction (passenger aircraft): 203

IMDG-Code
UN number: UN 1950
Proper shipping name: AEROSOLS (Oxytetracycline)
Class: 2.1
Packing group: Not assigned by regulation
Labels: 2.1
EmS Code: F-D, S-U
Marine pollutant: yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

ANTT
SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
National List of Carcinogenic Agents for Humans - (LINACH) : Not applicable

Brazil. List of chemicals controlled by the Federal Police : Propan-2-ol

International Regulations

The ingredients of this product are reported in the following inventories:
AICS : not determined
DSL : not determined
IECSC : not determined

SECTION 16. OTHER INFORMATION

Further information

Full text of other abbreviations
ACGIH : USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)
BR OEL : Brazil. NR 15 - Unhealthy activities and operations
ACGIH / TWA : 8-hour, time-weighted average
ACGIH / STEL : Short-term exposure limit
BR OEL / LT : Up to 48 hours /week

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with
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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user’s end product, if applicable.