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

<table>
<thead>
<tr>
<th>1.1. Product identifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product form: Mixture</td>
</tr>
<tr>
<td>Product name: Forte</td>
</tr>
<tr>
<td>Product code: M77646</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.2. Relevant identified uses of the substance or mixture and uses advised against</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>1.3. Details of the supplier of the safety data sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>JR Simplot Company</td>
</tr>
<tr>
<td>P.O. Box 70013</td>
</tr>
<tr>
<td>Boise, ID 83707</td>
</tr>
<tr>
<td>T 1-208-336-2110</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.4. Emergency telephone number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency number: CHEMTREC 1-800-424-9300</td>
</tr>
</tbody>
</table>

**SECTION 2: Hazards identification**

<table>
<thead>
<tr>
<th>2.1. Classification of the substance or mixture</th>
</tr>
</thead>
</table>

**GHS-US classification**

- Skin Irrit. 2: H315
- Eye Irrit. 2A: H319

Full text of H-phrases: see section 16

<table>
<thead>
<tr>
<th>2.2. Label elements</th>
</tr>
</thead>
</table>

**GHS-US labelling**

- Hazard pictograms (GHS-US): ![Exclamation Mark]
- Signal word (GHS-US): Warning
- Hazard statements (GHS-US): H315 - Causes skin irritation, H319 - Causes serious eye irritation
- Precautionary statements (GHS-US): P264 - Wash hands thoroughly after handling, P280 - Wear eye protection, protective gloves, P302+P352 - If on skin: Wash with plenty of 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, P321 - Specific treatment (see... on this label), P332+P313 - If skin irritation occurs: Get medical attention, P337+P313 - If eye irritation persists: Get medical attention, P362 - Take off contaminated clothing and wash before reuse

<table>
<thead>
<tr>
<th>2.3. Other hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>No additional information available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.4. Unknown acute toxicity (GHS-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
</tr>
</tbody>
</table>

**SECTION 3: Composition/information on ingredients**

<table>
<thead>
<tr>
<th>3.1. Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3.2. Mixture</th>
</tr>
</thead>
</table>
**Forte Safety Data Sheet**

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<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary</td>
<td></td>
<td>86 - 90</td>
<td>Not classified</td>
</tr>
<tr>
<td>Hexylene Glycol*</td>
<td>(CAS No) Trade Secret</td>
<td>10 - 14</td>
<td>Skin Irrit. 2, H315 Eye Irrit. 2A, H319</td>
</tr>
</tbody>
</table>

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of H-phrases: see section 16

**SECTION 4: First aid measures**

4.1. Description of first aid measures

First-aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see ... on this label).

First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/injuries after skin contact: Causes skin irritation.

Symptoms/injuries after eye contact: Causes serious eye irritation.

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

No additional information available

**SECTION 5: Firefighting measures**

5.1. Extinguishing media


Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Reactivity: Product is stable in sealed containers.

5.3. Advice for firefighters

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

**SECTION 6: Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment: Equip cleanup crew with proper protection.

Emergency procedures: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

**SECTION 7: Handling and storage**

7.1. Precautions for safe handling

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures: Wash ... thoroughly after handling.
7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Keep only in the original container in a cool, well ventilated place away from: Keep container closed when not in use.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Sources of ignition. Direct sunlight.

Storage temperature: >= 25 (5-42) °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th></th>
<th>Forte</th>
<th>Hexylene Glycol</th>
<th>Proprietary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ACGIH</td>
<td>OSHA</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Control parameters</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Personal protective equipment: Avoid all unnecessary exposure.

Hand protection: Wear protective gloves.

Eye protection: Chemical goggles or safety glasses.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: Wear appropriate mask.

Other information: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Forte</th>
<th>Hexylene Glycol</th>
<th>Proprietary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colour</td>
<td>amber</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>Similar to apple cider</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>&gt;= 4 - 4.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freezing point</td>
<td>&lt;= 0 °C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling point</td>
<td>&gt;= 100 °C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>93.3 °C None</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explosive limits</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative vapour density at 20 °C</td>
<td>No data available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>1.027 g/ml</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Forte**

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### Solubility

- **Soluble in water.**
  - Water: Solubility in water of component(s) of the mixture:
    - 2-methyl-2,4-pentanediol: Complete

### Log Pow

- No data available

### Log Kow

- No data available

### Auto-ignition temperature

- No data available

### Decomposition temperature

- No data available

### Viscosity

- No data available

### Viscosity, kinematic

- No data available

### Viscosity, dynamic

- No data available

---

### 9.2. Other information

**VOC content:** <= 10 g/l

---

**SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Product is stable in sealed containers.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No additional information available

#### 10.4. Conditions to avoid

- Direct sunlight. Extremely high or low temperatures. Excessive heat and open flame. Sparks.

#### 10.5. Incompatible materials

- Strong acids. Strong bases.

#### 10.6. Hazardous decomposition products


---

**SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

**Acute toxicity:** Not classified

#### Hexylene Glycol

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>3700 mg/kg (Rat; OECD 420: Acute Oral toxicity – Acute Toxic Class Method; Experimental value; &gt;= 2000 mg/kg body weight; Rat)</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
<td>&gt; 2000 mg/kg body weight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 8000 mg/kg (Rabbit)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
<td>3700,000 mg/kg body weight</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation:** Causes skin irritation.

- **pH:** >= 4 - 4.5

**Serious eye damage/irritation:** Causes serious eye irritation.

- **pH:** >= 4 - 4.5

**Respiratory or skin sensitisation:** Not classified

**Germ cell mutagenicity:** Not classified

Based on available data, the classification criteria are not met

**Carcinogenicity:** Not classified

**Reproductive toxicity:** Not classified

Based on available data, the classification criteria are not met

**Specific target organ toxicity (single exposure):** Not classified

**Specific target organ toxicity (repeated exposure):** Not classified

**Aspiration hazard:** Not classified
Potential adverse human health effects and symptoms:
Based on available data, the classification criteria are not met.
Symptoms/injuries after skin contact:
Causes skin irritation.
Symptoms/injuries after eye contact:
Causes serious eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

| Hexylene Glycol | LC50 fish 1 | 12800 mg/l (96 h; Lepomis macrochirus) |
| Hexylene Glycol | LC50 other aquatic organisms 1 | 10 - 100 mg/l (96 h) |
| Hexylene Glycol | EC50 Daphnia 1 | 5410 mg/l (48 h; Daphnia magna) |
| Hexylene Glycol | LC50 fish 2 | 9450 mg/l (96 h; Oncorhynchus mykiss) |
| Hexylene Glycol | EC50 Daphnia 2 | 3300 mg/l (48 h; Daphnia pulex) |
| Hexylene Glycol | Threshold limit other aquatic organisms 1 | 10 - 100,96 h |
| Hexylene Glycol | Threshold limit algae 1 | > 429 mg/l (72 h; Pseudokirchneriella subcapitata) |

12.2. Persistence and degradability

Forte:
Persistence and degradability: Not established.

Proprietary:
Persistence and degradability: Not established.

Hexylene Glycol:
Biochemical oxygen demand (BOD): 0.02 g O₂/g substance
Chemical oxygen demand (COD): 2.20 g O₂/g substance
ThOD: 2.3 g O₂/g substance
BOD (% of ThOD): 0.01 % ThOD

12.3. Bioaccumulative potential

Forte:
Bioaccumulative potential: Not established.

Proprietary:
Bioaccumulative potential: Not established.

Hexylene Glycol:
Log Pow: 0.58 (QSAR)
Bioaccumulative potential: Low potential for bioaccumulation (Log Kow < 4). Not established.

12.4. Mobility in soil

Hexylene Glycol:
Surface tension: 0.033 N/m

12.5. Other adverse effects

Effect on the global warming:
No known ecological damage caused by this product.

Other information:
Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations:
Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials:
Avoid release to the environment.
SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT
Not regulated for transport

Additional information
Other information : No supplementary information available.

ADR
No additional information available

Transport by sea
No additional information available

Air transport
No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Hexylene Glycol
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA
No additional information available

EU-Regulations
No additional information available

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

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]
Not classified

National regulations
No additional information available

15.3. US State regulations

Hexylene Glycol
U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Other information : None.

Full text of H-phrases:

- Eye Irrit. 2A: Serious eye damage/eye irritation, Category 2A
- Skin Irrit. 2: Skin corrosion/irritation, Category 2
- H315: Causes skin irritation
- H319: Causes serious eye irritation

NFPA health hazard : 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

NFPA specific hazard : None
**HMIS III Rating**

**Health**: 0 Minimal Hazard - No significant risk to health

**Flammability**: 0 Minimal Hazard - Materials that will not burn

**Physical**: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

**Personal Protection**: C

- Safety glasses, Gloves, Synthetic apron

**Disclaimers**

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