1. Identification

Product identifier: **LP™ Winter Flow Improver**

Other means of identification: None.

Recommended use: Flow Improver.

Recommended restrictions: Other uses are not recommended unless an assessment is completed, prior to commencement of that use, which demonstrates that the use will be controlled.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer: LiquidPower Specialty Products Inc.

Address: One BriarLake Plaza
2000 W Sam Houston Pkwy S
Suite 400
Houston, TX 77042

Telephone: 1.713.339.8703 or 1.800.897.2774

e-mail: SDS@LiquidPower.com

Website: www.LiquidPower.com

Emergency telephone: +1 703.527.3887

2. Hazard identification

Physical hazards: Not classified.

Health hazards: Not classified.

Label elements

- **Hazard symbol**: None.
- **Signal word**: None.
- **Hazard statement**: The mixture does not meet the criteria for classification.
- **Precautionary statement**
  - Prevention: Observe good industrial hygiene practices.
  - Response: Wash hands after handling.
  - Storage: Store away from incompatible materials.
  - Disposal: Dispose of waste and residues in accordance with local authority requirements.

Other hazards: None known.

Supplemental information: None.

3. Composition/information on ingredients

Mixtures

The components are not hazardous or are below required disclosure limits.

4. First-aid measures

**Inhalation**: Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact**: Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact**: Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion**: Rinse mouth. Get medical attention if symptoms occur.

**Most important symptoms/effects, acute and delayed**: Direct contact with eyes may cause temporary irritation.

**Indication of immediate medical attention and special treatment needed**: Treat symptomatically.
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media
Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media
None known.

Specific hazards arising from the chemical
Closed containers can burst violently when heated, due to excess pressure build-up.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
Move containers from fire area if you can do it without risk.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up
Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions
Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

7. Handling and storage

Precautions for safe handling
Avoid prolonged exposure. Ensure adequate ventilation. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities
Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits
No exposure limits noted for ingredient(s).

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

Exposure guidelines
Follow standard monitoring procedures. No exposure standards allocated.

Appropriate engineering controls
Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Individual protection measures, such as personal protective equipment

Eye/face protection
Risk of contact: Wear approved safety goggles.

Skin protection
Hand protection
Use suitable protective gloves if risk of skin contact. Suitable gloves can be recommended by the glove supplier.

Other
If prolonged or repeated contact is likely, chemical resistant clothing is recommended.

Respiratory protection
In case of inadequate ventilation, use respiratory protection.

Thermal hazards
Wear appropriate thermal protective clothing, when necessary.

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. Discard contaminated clothing and footwear that cannot be cleaned.

9. Physical and chemical properties

Appearance

Physical state
Liquid.

Form
Liquid.

Colour
White.
Odour threshold

- Not available.

pH

- 10 - 12.3

Melting point/freezing point

- -10 °C (14 °F)

Initial boiling point and boiling range

- 105 °C (221 °F)

Flash point

- Not applicable.

Evaporation rate

- Same as water.

Flammability (solid, gas)

- Not applicable.

Upper/lower flammability or explosive limits

- Flammability limit - lower (%): Not applicable.
- Flammability limit - upper (%): Not applicable.

Vapour pressure

- 23.8 mmHg (25°C)

Vapour density

- < 1 (Air = 1)

Relative density

- 0.84 - 0.97 (15.6°C / 60°F)

Solubility (water)

- Disperses completely.

Partition coefficient

- Not available.

Auto-ignition temperature

- Not available.

Decomposition temperature

- Not available.

Viscosity

- 50 - 200 cP @ 511s-1 (Non-Newtonian) (25°C)

Other information

- Explosive properties: Not explosive.
- Oxidising properties: Not oxidising.

10. Stability and reactivity

Reactivity

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

Chemical stability

- Material is stable under normal conditions.

Possibility of hazardous reactions

- No dangerous reaction known under conditions of normal use.

Conditions to avoid

- Contact with incompatible materials. Extreme temperatures.

Incompatible materials

- Strong oxidising agents.

Hazardous decomposition products

- No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

- Inhalation: No adverse effects due to inhalation are expected.
- Skin contact: No adverse effects due to skin contact are expected.
- Eye contact: Direct contact with eyes may cause temporary irritation.
- Ingestion: Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

- Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

- Not expected to be acutely toxic.

Skin corrosion/irritation

- No information available on the mixture. However, none of the components are classified in respect of this hazard (or are present at a level below the concentration threshold for classification).
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**Respiratory or skin sensitisation**

- **Respiratory sensitisation**
  No information available on the mixture. However, none of the components are classified in respect of this hazard (or are present at a level below the concentration threshold for classification).

- **Skin sensitisation**
  No information available on the mixture. However, none of the components are classified in respect of this hazard (or are present at a level below the concentration threshold for classification).

- **Germ cell mutagenicity**
  No information available on the mixture. However, none of the components are classified in respect of this hazard (or are present at a level below the concentration threshold for classification).

- **Carcinogenicity**
  No information available on the mixture. However, none of the components are classified in respect of this hazard (or are present at a level below the concentration threshold for classification).

- **Reproductive toxicity**
  No information available on the mixture. However, none of the components are classified in respect of this hazard (or are present at a level below the concentration threshold for classification).

- **Specific target organ toxicity - single exposure**
  No information available on the mixture. However, none of the components are classified in respect of this hazard (or are present at a level below the concentration threshold for classification).

- **Specific target organ toxicity - repeated exposure**
  No information available on the mixture. However, none of the components are classified in respect of this hazard (or are present at a level below the concentration threshold for classification).

- **Aspiration hazard**
  Not an aspiration hazard.

- **Chronic effects**
  None known.

- **Further information**
  None known.

### 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.

- **Persistence and degradability**
  No data available.

- **Bioaccumulative potential**
  No data available.

- **Mobility in soil**
  This product is water soluble and may disperse in soil.

- **Other adverse effects**
  No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

- **Disposal instructions**
  Waste material from this product should not be exposed to waste streams or sumps containing any concentration of hydrocarbon. This will cause formation of gelled substances that may plug pipes. Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

- **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.

- **Waste from residues / unused products**
  Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

- **Contaminated packaging**
  Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport information

- **TDG**
  Not regulated as dangerous goods.

- **IATA**
  Not regulated as dangerous goods.

- **IMDG**
  Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

15. Regulatory information

Canadian regulations
This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Substances Act
Not regulated.
Export Control List (CEPA 1999, Schedule 3)
Not listed.
Greenhouse Gases
Not listed.
Precursor Control Regulations
Not regulated.

International regulations
Stockholm Convention
Not applicable.
Rotterdam Convention
Not applicable.
Kyoto Protocol
Not applicable.
Montreal Protocol
Not applicable.
Basel Convention
Not applicable.

International Inventories

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<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
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<tbody>
<tr>
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<td>Australian Inventory of Chemical Substances (AICS)</td>
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<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
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<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
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<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
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</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

Issue date: 16-September-2019
Revision date: 31-March-2020
Version No.: 03

References
HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity
LiquidPower Specialty Products Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.