

## 1. Identification

<b>GHS product identifier</b>	<b>LP™ 100 Flow Improver</b>
<b>Version No.</b>	03
<b>Issue date</b>	19-April-2017
<b>Revision date</b>	31-March-2020
<b>Supersedes date</b>	01-November-2019
<b>CAS No.</b>	Mixture
<b>Recommended use</b>	Flow Improver.
<b>Recommended Restrictions</b>	Other uses are not recommended unless an assessment demonstrates potential exposures will be controlled.
<b>Manufacturer</b>	
<b>Manufacturer Address</b>	LiquidPower Specialty Products Inc. One BriarLake Plaza 2000 W Sam Houston Pkwy S Suite 400 Houston, TX 77042
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## 2. Hazards identification

<b>GHS classification</b>	
<b>Physical hazards</b>	Not classified.
<b>Health hazards</b>	Not classified.
<b>Environmental hazards</b>	Not classified.
<b>GHS label elements</b>	
<b>Signal word</b>	None.
<b>Hazard symbols</b>	None.
<b>Hazard statement</b>	The mixture does not meet the criteria for classification.
<b>Precautionary statements</b>	
<b>Prevention</b>	Observe good industrial hygiene practices.
<b>Response</b>	Wash hands after handling.
<b>Storage</b>	Store away from incompatible materials.
<b>Disposal</b>	Dispose of waste and residues in accordance with local authority requirements.
<b>Other hazards which do not result in classification</b>	None known.
<b>Supplemental information</b>	None.

## 3. Composition/information on ingredients

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

## 4. First aid measures

<b>First aid procedures</b>	
<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye</b>	Rinse with water. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms and effects, both acute and delayed</b>	Direct contact with eyes may cause temporary irritation.
<b>Notes to physician</b>	Treat symptomatically.

**General advice** Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

**Suitable extinguishing media** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical** During fire, gases hazardous to health may be formed.

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

**Protection of fire-fighters** Move containers from fire area if you can do so without risk.

## 6. Accidental release measures

**Personal precautions** Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

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

**Methods for containment** Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.

**Methods for 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.

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

## 7. Handling and storage

**Handling** Avoid prolonged exposure. Observe good industrial hygiene practices. Ensure adequate ventilation.

**Storage** 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).

**Recommended monitoring procedures** Follow standard monitoring procedures.

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

**Personal protective equipment**

- Eye/face protection** Risk of contact: Wear approved safety goggles.
- Skin protection** If prolonged or repeated contact is likely, chemical resistant clothing is recommended.
- Respiratory protection** In case of inadequate ventilation, use respiratory protection.
- Hand protection** Use suitable protective gloves if risk of skin contact. Suitable gloves can be recommended by the glove supplier.

## 9. Physical and chemical properties

**Appearance**

- Physical state** Liquid.
- Colour** White.
- Form** Liquid.

**Odour** Mild.

**Odour threshold** Not available.

**pH** 10 - 12.3

**Melting point/freezing point** 0 °C (32 °F)

**Boiling point** 100 °C (212 °F)

**Flash point** Not applicable.

**Evaporation rate** Same as water.

**Flammability (solid, gas)** Not applicable.

**Flammability limits in air, lower, % by volume** Not applicable.

**Flammability limits in air, upper, % by volume** Not applicable.

<b>Vapour pressure</b>	23.8 mmHg (25°C)
<b>Vapour density</b>	< 1 (Air = 1)
<b>Relative density</b>	0.84 - 0.97 (15.6°C)
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Disperses completely.
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	50-200 cP 511s-1 (Non-Newtonian) (25°C)
<b>Other data</b>	
<b>Explosive properties</b>	Not explosive.
<b>Oxidising properties</b>	Not oxidising.

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidising agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

<b>Routes of exposure</b>	Ingestion. Skin contact. Eye contact.
<b>Toxicological information</b>	No adverse effects are expected.
<b>Acute toxicity</b>	Not expected to be acutely toxic.
<b>Skin corrosion/irritation</b>	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).
<b>Serious eye damage/eye irritation</b>	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).
<b>Respiratory sensitizer</b>	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).
<b>Skin sensitisation</b>	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).
<b>Mutagenicity</b>	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).
<b>Carcinogenicity</b>	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).
<b>Reproductive toxicity</b>	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).
<b>Specific target organ toxicity - single exposure</b>	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).
<b>Specific target organ toxicity - repeated exposure</b>	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).
<b>Aspiration hazard</b>	Not an aspiration hazard.
<b>Local effects</b>	May irritate eyes and skin.
<b>Chronic effects</b>	None known.
<b>Symptoms</b>	Direct contact with eyes may cause temporary irritation.
<b>Human experience</b>	No data available.

**Other 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.

**Environmental effects** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**Persistence and degradability** No data available.

**Bioaccumulation** No data available.

**Aquatic toxicity** Not classified.

**Mobility** This product is miscible in water.

**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 methods** 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.

**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

### ADR

Not regulated as dangerous goods.

### RID

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** Not established.

## 15. Regulatory information

### International Inventories

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

\*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

### Disclaimer

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.

### List of abbreviations

LD50: Lethal Dose, 50%.  
LC50: Lethal Concentration, 50%.  
PBT: Persistent, bioaccumulative, toxic.  
vPvB: very Persistent, very Bioaccumulative.  
TWA : time weighed average.  
STEL: Short term exposure limit.  
TLV: Threshold Limit Value.