

1. Identification

GHS product identifier	LP™ 100 Flow Improver
Version No.	03
Issue date	19-April-2017
Revision date	31-March-2020
Supersedes date	01-November-2019
CAS No.	Mixture
Recommended use	Flow Improver.
Recommended Restrictions	Other uses are not recommended unless an assessment demonstrates potential exposures will be controlled.
Manufacturer	
Manufacturer Address	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

GHS classification	
Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Not classified.
GHS label elements	
Signal word	None.
Hazard symbols	None.
Hazard statement	The mixture does not meet the criteria for classification.
Precautionary statements	
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 which do not result in classification	None known.
Supplemental information	None.

3. Composition/information on ingredients

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

4. First aid measures

First aid procedures	
Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms and effects, both acute and delayed	Direct contact with eyes may cause temporary irritation.
Notes to physician	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 (CO₂).

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.

Vapour pressure	23.8 mmHg (25°C)
Vapour density	< 1 (Air = 1)
Relative density	0.84 - 0.97 (15.6°C)
Solubility(ies)	
Solubility (water)	Disperses completely.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	50-200 cP 511s-1 (Non-Newtonian) (25°C)
Other data	
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.
Incompatible materials	Strong oxidising agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Routes of exposure	Ingestion. Skin contact. Eye contact.
Toxicological information	No adverse effects are expected.
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).
Serious eye damage/eye 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).
Respiratory sensitizer	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).
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.
Local effects	May irritate eyes and skin.
Chronic effects	None known.
Symptoms	Direct contact with eyes may cause temporary irritation.
Human experience	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.