

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance/preparation	LP™ 111 Flow Improver
Use of the substance/preparation	Flow Improver.
Version No.	03
CAS No.	Mixture
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

This preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Physical hazards	Not classified as a physical hazard.
Health hazards	Not classified as a health hazard.
Environmental hazards	Not classified as an environmental hazard.
Specific hazards	None known.
Main symptoms	Direct contact with eyes may cause temporary irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

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

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Extinguishing media which must not be used for safety reasons	Do not use water jet as an extinguisher, as this will spread the fire.
Unusual fire & explosion hazards	None known.
Specific hazards	During fire, gases hazardous to health may be formed.
Special protective equipment for fire-fighters	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 so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

6. ACCIDENTAL RELEASE MEASURES

Containment procedures	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.
Personal precautions	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
Methods for cleaning up	<p>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.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p>

7. HANDLING AND STORAGE

Handling	Avoid prolonged exposure. Ensure adequate ventilation. Observe good industrial hygiene practices. Use care in handling/storage.
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).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures	
Additional exposure data	Follow standard monitoring procedures. No exposure standards allocated.
Engineering measures	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Personal protective equipment	
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.
Eye protection	Risk of contact: Wear approved safety goggles.
Skin and body protection	If prolonged or repeated contact is likely, chemical resistant clothing is recommended.
General	Use personal protective equipment as required. Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
Environmental exposure controls	Environmental manager must be informed of all major releases.
Hygiene measures	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	White liquid.
Physical state	Liquid.
Form	Liquid.
Colour	White.
Odour	Mild.
pH	10 - 12.3
Melting point/freezing point	0 °C (32 °F)
Boiling point, initial boiling point, and boiling range	100 °C (212 °F)
Flash point	Not applicable.
Auto-ignition temperature	Not available.
Flammability limit - lower (%)	Not applicable.
Flammability limit - upper (%)	Not applicable.
Vapour pressure	23.8 mmHg (25°C)
Vapour density	< 1 (Air = 1)
Evaporation rate	Same as water.

Solubility(ies)	
Solubility (water)	Disperses completely.
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Viscosity	50 - 200 cP 511s-1 (Non-Newtonian) (25°C)
Other data	
Relative density	0.84 - 0.97 (15.6°C)

10. STABILITY AND REACTIVITY

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Conditions to avoid	Contact with incompatible materials.
Hazardous decomposition products	No hazardous decomposition products are known.
Stability	Material is stable under normal conditions.
Materials to avoid	Strong oxidising agents.
Hazardous polymerisation	No dangerous reaction known under conditions of normal use.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	Not expected to be acutely toxic.
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Toxicological information	No adverse effects are expected.
Chronic toxicity	None known.
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).
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).
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).
Reproductivity	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).
Epidemiology	No epidemiological data is available for this product.
Local effects	May irritate eyes and skin.
Symptoms and target organs	Direct contact with eyes may cause temporary irritation.
Human experience	No data available.
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.
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.
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 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.
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

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 applicable.

15. REGULATORY INFORMATION

Labelling

R-phrases(s) None.
S-phrases(s) None.

16. OTHER INFORMATION

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	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).

Recommended use	Use in accordance with supplier's recommendations.
Recommended restrictions	Other uses are not recommended unless an assessment demonstrates potential exposures will be controlled.
Bibliography	HSDB® - Hazardous Substances Data Bank IARC Monographs. Overall Evaluation of Carcinogenicity
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.
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