

# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	<b>RP™ II Flow Improver</b>
<b>Other means of identification</b>	None.
<b>Recommended use of the chemical and restrictions on use</b>	
<b>Recommended use</b>	Flow Improver.
<b>Recommended restrictions</b>	Other uses are not recommended unless an assessment is completed, prior to commencement of that use, which demonstrates that the use will be controlled.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Manufacturer</b>	LiquidPower Specialty Products Inc.
<b>Address</b>	2103 CityWest Blvd. Suite 1400 Houston, TX 77042
<b>Telephone</b>	1.713.339.8703 or 1.800.897.2774
<b>e-mail</b>	SDS@LiquidPower.com
<b>Website</b>	www.LiquidPower.com
<b>Emergency telephone</b>	+1 703.527.3887 (USA) +1 800.424.9300 (USA)
<b>Singapore only</b>	800-101-2201 +(65)-31581349

## 2. Hazards identification

<b>GHS classification</b>		
<b>Physical hazards</b>	Not classified.	
<b>Health hazards</b>	Serious eye damage/eye irritation	Category 2A
<b>Environmental hazards</b>	Not classified.	

### GHS label elements, including precautionary statements

#### Pictograms



<b>Signal word</b>	Warning
<b>Hazard statements</b>	Causes serious eye irritation.

#### Precautionary statement

<b>Prevention</b>	Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
<b>Response</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Storage</b>	Store in a well-ventilated place. Keep cool.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Other hazards which do not result in classification</b>	None known.
<b>Supplemental information</b>	None known.

## 3. Composition/information on ingredients

Substance or mixture	Mixture		
Chemical name	Common name and synonyms	CAS Number	Concentration (%)
Alcohols, C7-9-iso-, C8-rich		68526-83-0	35 - 45
Octan-1-ol		111-87-5	2 - 10

<b>Composition comments</b>	All concentrations are in percent by weight. Components not listed are either non-hazardous or are below reportable limits.
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## 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>Ingestion</b>	Rinse mouth. Get medical attention if symptoms occur.
<b>Most important symptoms/effects, acute and delayed</b>	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Carbon dioxide (CO <sub>2</sub> ). Alcohol resistant foam. Powder.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.
<b>Methods and materials for containment and cleaning up</b>	Use water spray to reduce vapours or divert vapour cloud drift.  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. Follow

## 7. Handling and storage

<b>Precautions for safe handling</b>	Avoid prolonged exposure. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment.
<b>Conditions for safe storage, including any incompatibilities</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

<b>Control parameters/Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Appropriate engineering control measures</b>	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure

### Individual protection measures, such as personal protective equipment

<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles). Wear a face shield if there is a risk of splashing.
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<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves. Nitrile, butyl rubber or Viton (fluoroelastomers) gloves are recommended.
<b>Other</b>	Normal work clothing (long sleeved shirts and long pants) is recommended.
<b>Respiratory protection</b>	In case of accident and/or inadequate ventilation, use respiratory protection with organic vapour cartridge.
<b>Thermal hazards</b>	Not applicable.
<b>General hygiene considerations</b>	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.

## 9. Physical and chemical properties

### Appearance

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Colour</b>	White.
<b>Odour</b>	Sweet, pungent.
<b>Odour threshold</b>	Not available.
<b>pH</b>	Property has not been measured.
<b>Melting point/freezing point</b>	< -40 °C (< -40 °F)
<b>Initial boiling point and boiling range</b>	185 °C (365 °F)
<b>Flash point</b>	83 °C (181.4 °F)
<b>Evaporation rate</b>	Less than water.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Explosive limit - lower ( %)</b>	Property has not been measured.
<b>Explosive limit – upper (%)</b>	Property has not been measured.
<b>Vapour pressure</b>	1 mmHg (37.8°C)
<b>Vapour density</b>	< 1 (Air = 1)
<b>Relative density</b>	> 0.83 - < 0.91 (25°C / 77°F)
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Negligible in water.
<b>Partition coefficient (n-octanol/water)</b>	Property has not been measured.
<b>Auto-ignition temperature</b>	Property has not been measured.
<b>Decomposition temperature</b>	Property has not been measured.
<b>Viscosity</b>	150 cP 511s-1 (Non-Newtonian) (25 °C)
<b>Other data</b>	
<b>Explosive properties</b>	Not explosive.
<b>Kinematic viscosity</b>	Property has not been measured.
<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>	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidising agents.
<b>Hazardous decomposition products</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	Prolonged skin contact may cause temporary irritation.

<b>Eye contact</b>	Causes serious eye irritation.
<b>Ingestion</b>	May cause discomfort if swallowed.
<b>Acute toxicity</b>	Not expected to be acutely toxic.
<b>Symptoms</b>	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
<b>Skin corrosion/irritation</b>	Prolonged skin contact may cause temporary irritation.
<b>Corrosivity</b> RP™ II Flow Improver	OECD 404 Result: Very slight irritant Species: Rabbit
<b>Serious eye damage/eye irritation</b>	Causes serious eye irritation.
<b>Respiratory or skin sensitisation</b>	
<b>Respiratory 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>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>Germ cell 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>Chronic effects</b>	None known.
<b>Relevant negative data</b>	No data available.
<b>Other information</b>	None known.

## 12. Ecological information

<b>Ecotoxicity</b>	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.
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Components	Species		Test Results
Alcohols, C7-9-iso-, C8-rich (CAS 68526-83-0)			
Aquatic			
Acute			
Algae	ErC50	Pseudokirchnerella subcapitata	23 mg/l, 72 h
Crustacea	LC50	Daphnia magna	31.8 mg/l, 48 h
Fish	LC50	Pimephales promelas	14 mg/l, 96 h
Chronic			
Crustacea	EC10	Ceriodaphnia dubia	0.28 mg/l, 6 day
Fish	EC10	Pimephales promelas	> 0.28 mg/l, 33 day
Octan-1-ol (CAS 111-87-5)			
Aquatic			
Acute			
Fish	LC50	Fathead minnow (Pimephales promelas)	>= 12.3 - <= 13.4 mg/l, 96 hours
Persistence and degradability	No data is available on the degradability of this product.		
Bioaccumulative potential	The product is not expected to bioaccumulate.		

**Octanol/water partition coefficient log Kow**

Octan-1-ol (CAS 111-87-5)

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**Mobility in soil**

Expected to have low mobility in soil and sediments with adsorption being the predominant physical process.

**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/information**

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

**Special precautions**

Dispose in accordance with all applicable regulations.

**14. Transport information****ADR**

Not regulated as dangerous goods.

**RID**

Not regulated as dangerous goods.

**ADN**

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****Safety, health and environmental regulations specific for the product in question**

**Prior Informed Consent (PIC) Substances (Environment Protection and Management Act, 2nd Schedule, Part 1, Jul. 1, 2013)**

Not regulated.

**Chemical Weapons Prohibition (Act)**

Not applicable.

**Environmental Protection and Management (Hazardous Substances) Regulations**

Not applicable.

**Environmental Public Health Act**

Not applicable.

**Misuse of Drugs Act**

**Controlled Narcotic Drugs (Misuse of Drugs Act, First Schedule, Part I, II & III, as amended)**

Not regulated.

**Drug Precursors (Misuse of Drugs Act, Third Schedule, Parts I & II, as amended)**

Not regulated.

**Controlled Specified Drugs (Misuse of Drugs Act, Fourth Schedule, as amended)**

Not regulated.

**International regulations**

**Montreal Protocol**

Not applicable.

**Stockholm Convention**

Not applicable.

**Rotterdam Convention**

Not applicable.

**Kyoto Protocol**

Not applicable.

**Basel Convention**

Not applicable.

**International Inventories**

**Country(s) or region**

**Inventory name**

**On inventory (yes/no)\***

Australia

Australian Inventory of Industrial Chemicals (AICIS)

Yes

Canada

Domestic Substances List (DSL)

Yes

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

\*A "Yes" indicates that all components of this product comply 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

<b>References</b>	HSDB® - Hazardous Substances Data Bank IARC Monographs. Overall Evaluation of Carcinogenicity
<b>Issued by</b>	Not available.
<b>Prepared by</b>	Not available.
<b>Disclaimer</b>	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

<b>Issue date</b>	12-May-2017
<b>Revision date</b>	20-June-2023
<b>Key/legend</b>	Not applicable.