

### 1. Identification of Substance & Company

#### Product

Product name	Hot 203L Low VOC
HSNO approval	HSR002669
Approval description	Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2006
UN number	1133
DG class	3
Proper Shipping Name	ADHESIVES
Packaging group	II
Hazchem code	3YE
Uses	PVC solvent cement

#### Company Details

Company	<b>HYDROFLOW</b>
Address	221 Bush Road, Albany, North Shore City 0632
Telephone	09 415 6151
Fax	09 415 6150
Email	info@hydroflow.co.nz

**National Poison Centre NZ (24 hours): 0800 POISON [764 766]**

### 2. Hazard Identification

#### Approval

This product has been approved under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002669, Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2006), and is classified as follows:

Classes	Hazard Statements
3.1B	Highly flammable liquid and vapour.
6.1D (oral)	Harmful if swallowed.
6.3A	Causes skin irritation.
6.4A	Causes eye irritation.
6.7B	Suspected of causing cancer
6.9B	May cause damage to organs
6.9 (respiratory irritation)	May cause respiratory irritation.
9.3C	Harmful to terrestrial vertebrates.

#### SYMBOLS

## DANGER



#### Other Classifications

There are no other Classifications that are known to apply.

### Precautionary Statements

Read label before use.  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep out of reach of children.  
Wear protective gloves/eye/face protection.  
Wash hands thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Do not breathe vapours.

Keep away from ignition sources. No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Use only outdoors or in a well-ventilated area.  
Avoid release to the environment.

Store in a well-ventilated place. Keep cool.  
Keep container tightly closed.  
Store locked up.

\* These precautionary statements apply when a flammable zone is required to be established.  
See Section 15 – Regulatory Information

Further precautionary statements can be found in Section 4 – First Aid.

### 3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Methyl ethyl ketone	78-93-3	10-30%
Tetrahydrofuran	109-99-9	40-60%
Acetone	67-64-1	5-20%

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

### 4. First Aid

#### General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service). IF exposed or concerned: Get medical advice/ attention.

#### Recommended first aid facilities

Ready access to running water is required. Accessible eyewash is required.

#### Exposure

##### Swallowed

IF SWALLOWED: Do NOT induce vomiting. Rinse mouth. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. IF exposed or concerned: Get medical advice/ attention.

##### Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. If eye irritation persists: Get medical advice.

##### Skin contact

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash before re-use.

##### Inhaled

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

#### Advice to Doctor

Treat symptomatically

### 5. Firefighting Measures

<b>Fire and explosion hazards:</b>	Vapours may form an explosive mixture in air which can be ignited by many sources such as pilot lights, open flames, electrical motors, switches and static electricity.
<b>Suitable extinguishing substances:</b>	Carbon dioxide, extinguishing powder, foam.
<b>Unsuitable extinguishing substances:</b>	Unknown.
<b>Products of combustion:</b>	Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.
<b>Protective equipment:</b>	Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.
<b>Hazchem code:</b>	3YE

### 6. Accidental Release Measures

<b>Containment</b>	If greater than 1000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to stormwater.
<b>Emergency procedures</b>	In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use sawdust. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
<b>Clean-up method</b>	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
<b>Disposal</b>	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
<b>Precautions</b>	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

### 7. Storage & Handling

<b>Storage</b>	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10. Location test certificates must be available if storing >100L (containers >5L), 250L (containers ≤5L), 50L (in use). Containers (and outer packaging) must bear the prescribed labelling, including the Hazchem code, UN number, flammability warning and name of contents.
<b>Handling</b>	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

### 8. Exposure Controls / Personal Protective Equipment

#### Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 10mg/m<sup>3</sup> for dusts and mists when limits have not otherwise been established.

NZ Workplace Exposure Stds (2013)	Ingredient	WES-TWA	WES-STEL
	Methyl ethyl ketone	150ppm, 445mg/m <sup>3</sup>	300ppm, 890mg/m <sup>3</sup>
	Tetrahydrofuran	100ppm, 295mg/m <sup>3</sup>	data unavailable
	Acetone	500ppm, 1185mg/m <sup>3</sup>	1000ppm, 2375 mg/m <sup>3</sup>

#### Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety in Employment Act 1992 (HSE). Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

#### Personal Protective Equipment

##### Eyes



Avoid contact with eyes. Use safety glasses and or chemical splash goggles if splashes are possible.

##### Skin



Protective gloves are recommended. Laminate film gloves are recommended. PVA gloves give poor protection. Nitrile, PVC, natural rubber and neoprene gloves are NOT recommended as tetrahydrofuran penetrates these materials. Replace gloves very frequently. Gloves should be checked for tears or holes before use.

##### Respiratory



A respirator when airborne concentrations approach the WES (section 8). Use a respirator with an organic vapour cartridge and a dust/mist filter. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

#### WES Additional Information

Not applicable

### 9. Physical & Chemical Properties

Appearance	blue liquid
Odour	pungent odour
pH	no data
Vapour pressure	129mmHg at 20°C
Viscosity	no data
Boiling point	66°C
Volatile materials	510g/L VOC
Freezing / melting point	no data
Solubility	soluble in water
Specific gravity / density	0.91
Flash point	-17°C (SETA CC)
Danger of explosion	not explosive
Auto-ignition temperature	no data
Upper & lower flammable limits	LEL: 1.8%, UEL 11.8%
Corrosiveness	non corrosive

### 10. Stability & Reactivity

<b>Stability</b>	Stable
<b>Conditions to be avoided</b>	Flammable substance. Keep away from sources of ignition at all times. Containers should be kept closed in order to avoid contamination.
<b>Incompatible groups</b>	Strong oxidisers, acids, bases.
<b>Substance Specific Incompatibility</b>	none known
<b>Hazardous decomposition products</b>	oxides of carbon, HCl and fragmented hydrocarbons.
<b>Hazardous reactions</b>	none known

### 11. Toxicological Information

#### Summary

IF SWALLOWED: small amounts if liquid aspirated into the lungs during ingestion may cause chemical pneumonia or pulmonary edema.

IF IN EYES: severely irritating.

IF ON SKIN: may cause irritation and dermatitis.

IF INHALED: overexposure may cause coughing, shortness of breath, dizziness, central nervous system depression, intoxication and collapse. Vapours may be irritating to the respiratory system and mucous membranes.

CHRONIC: this mixture contains tetrahydrofuran which is suspected of causing cancer (kidney, liver)

#### Supporting Data

<b>Acute</b>	<b>Oral</b>	Using LD <sub>50</sub> 's for ingredients, the calculated LD <sub>50</sub> (oral, rat) for the mixture is between 300 and 2000 mg/kg. Data considered includes: Methyl ethyl ketone 2737 mg/kg (rat), Tetrahydrofuran 1650mg/kg (rat), Acetone 3000 mg/kg (mouse).
	<b>Dermal</b>	No evidence of dermal toxicity.
	<b>Inhaled</b>	No evidence of acute inhalation toxicity.
	<b>Eye</b>	The mixture is considered to be an eye irritant. Methyl ethyl ketone, tetrahydrofuran and acetone are considered eye irritants.
<b>Chronic</b>	<b>Skin</b>	The mixture is considered to be a skin irritant. Methyl ethyl ketone, tetrahydrofuran and acetone are considered skin irritants.
	<b>Sensitisation</b>	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	<b>Mutagenicity</b>	No ingredient present at concentrations > 0.1% is considered a mutagen.
	<b>Carcinogenicity</b>	The mixture is considered to be a suspected carcinogen. Tetrahydrofuran is a suspected carcinogen. Animal experiments have shown susceptibility to kidney or liver tumours.
	<b>Reproductive / Developmental Systemic</b>	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
	<b>Aggravation of existing conditions</b>	The mixture is considered to be a suspected target organ toxicant. Methyl ethyl ketone and tetrahydrofuran are classed as suspected systemic toxicants by EPA. None known.

### 12. Ecological Data

#### Summary

This mixture is not considered ecotoxic in the aquatic environment. It is considered harmful towards terrestrial vertebrates.

#### Supporting Data

<b>Aquatic</b>	No evidence of aquatic ecotoxicity =.
<b>Bioaccumulation</b>	No data
<b>Degradability</b>	No data
<b>Soil</b>	No evidence of soil toxicity.
<b>Terrestrial vertebrate</b>	The mixture is considered harmful to terrestrial vertebrates. Using LD <sub>50</sub> 's for ingredients, the calculated LD <sub>50</sub> (oral, rat) for the mixture is between 500 and 2,000 mg/kg. Data considered includes: Methyl ethyl ketone 2737 mg/kg (rat), Tetrahydrofuran 1650mg/kg (rat), Acetone 3000 mg/kg (mouse).
<b>Terrestrial invertebrate</b>	No evidence of ecotoxicity towards terrestrial invertebrates.
<b>Biocidal</b>	no data
<b>Environmental effect levels</b>	No EELs are available for this mixture or ingredients

### 13. Disposal Considerations

<b>Restrictions</b>	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
<b>Disposal method</b>	Disposal of this product must comply with the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
<b>Contaminated packaging</b>	Rinse containers with water before disposal. Preferably re-cycle container, otherwise send to landfill or similar.

### 14. Transport Information

Transport according to NZS 5433 (Transport of Hazardous Substances on Land). Considered a dangerous good for transport.

<b>UN number:</b>	1133	<b>Proper shipping name:</b>	ADHESIVES
<b>Class(es)</b>	3	<b>Packing group:</b>	II
<b>Precautions:</b>	Flammable liquid	<b>Hazchem code:</b>	3YE

### 15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002669, Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2006.

#### Specific Workplace Controls (as per HSNO approval referenced to Controls Matrix)

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing > any quantity.
Labelling	No removal of labels and/or decanting of product into other containers can occur.
Emergency plan	Required if > 1000L is stored.
Approved handler	Required if > >250L (for containers >5L), >500L (for containers <5L) is handled or stored.
Tracking	Not required.
Bundling & secondary containment	Required if > 1000L is stored.
Signage	Required if > 250L is stored in any one location.
Location test certificate	Required if > 100L (>5L), 250L (≤5L), 50L (in use) is stored in any one location.
Flammable zone	Must be established if > 100L (closed), 25L (decanting), 5L (open occasionally), 1L (in use) is stored in any one location.
Fire extinguisher	If > 250L present.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

#### Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health, Safety in Employment Act and Regulations, local Council Rules and Regional Council Plans. All ingredients are listed in the New Zealand Inventory of Chemicals.

### 16. Other Information

#### Abbreviations

<b>Approval Code</b>	Approval HSR002669, Surface Coatings and Colourants (Flammable, Toxic [6.7]) Group Standard 2006 Controls, EPA. <a href="http://www.epa.govt.nz">www.epa.govt.nz</a>
<b>CAS Number</b>	Unique Chemical Abstracts Service Registry Number
<b>Ceiling</b>	Ceiling Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
<b>Controls Matrix</b>	List of default controls linking regulation numbers to Matrix code (e.g. T1, I16).
<b>EC<sub>50</sub></b>	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
<b>ERMA</b>	Environmental Risk Management Authority (now EPA)
<b>EPA</b>	Environmental Protection Agency (previously known as ERMA)
<b>HAZCHEM Code</b>	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
<b>HSNO</b>	Hazardous Substances and New Organisms (Act and Regulations)
<b>IARC</b>	International Agency for Research on Cancer
<b>LEL</b>	Lower Explosive Limit
<b>LD<sub>50</sub></b>	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
<b>LC<sub>50</sub></b>	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
<b>MSDS (SDS)</b>	Material Safety Data Sheet (or Safety Data Sheet)
<b>STEL</b>	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
<b>TWA</b>	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
<b>UEL</b>	Upper Explosive Limit
<b>UN Number</b>	United Nations Number
<b>WES</b>	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed.

#### References

<b>Data</b>	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID) <a href="http://www.epa.govt.nz/hs/compliance/chemicals.html">http://www.epa.govt.nz/hs/compliance/chemicals.html</a> , for specific chemicals.
<b>EPA Transfer Gazettes</b>	Classifications and controls assigned for specific ingredients (consolidated gazette, 2004)
<b>Controls Matrix</b>	Part of the EPA New Zealand User Guide to the HSNO Control Regulations
<b>WES 2013</b>	The NZ Workplace Exposure Standards Effective from 2013, published by WorkSafe NZ and available on their web site – <a href="http://www.worksafe.govt.nz">www.worksafe.govt.nz</a> .
<b>Other References:</b>	Suppliers SDS

#### Review

Date	Reason for review
August 2015	Not applicable – new SDS

#### Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely HSNO classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email [info@datachem.co.nz](mailto:info@datachem.co.nz) or phone: +64 9 940 30 80.

