

## 1. Identification of Substance & Company

Product	
Product name	MB510-4
HSNO approval	HSR002662
Approval description	Surface Coatings and Colourants (Flammable) Group Standard 2017
UN number	1210
DG class	3
Proper Shipping Name	PRINTING INK
Packaging group	II
Hazchem code	3YE
Uses	Printing Ink

### Company Details

Company	<b>MITech Limited</b>
Address	60 Cawley Street PO Box 394962 Ellerslie 1547 Auckland New Zealand
Telephone	+64 9 915 5555
Email	askmi@mitech.co.nz
Website	www.mitech.co.nz

**Emergency Telephone Number: 0800-764 766**

## 2. Hazard Identification

### Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002662, Surface Coatings and Colourants (Flammable) Group Standard 2017). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Minimum Degrees of Hazard) Notice 2017.

Classes	Hazard Statements
3.1B	H225 - Highly flammable liquid and vapour.
6.1E (oral)	H303 - May be harmful if swallowed
6.1E (dermal)	H313 - May be harmful in contact with skin.
8.3A	H318 - Causes serious eye damage.
6.5B	H317 - May cause an allergic skin reaction.
6.9B (narcotic)	H336 - May cause drowsiness or dizziness.
9.1C	H412 - Harmful to aquatic life with long lasting effects.

### SYMBOLS

**DANGER**



### GHS 7 classifications (from 30 April 2021)

Classes	Hazard Statements
Flamm liq cat 2	H225 - Highly flammable liquid and vapour.
Eye corr cat 1	H318 - Causes serious eye damage.
Skin sens cat 1B	H317 - May cause an allergic skin reaction.
STOT SE cat 3	H336 - May cause drowsiness or dizziness.
Aquatic chronic cat 3	H412 - Harmful to aquatic life with long lasting effects.

**Precautionary Statements**

- P101 - If medical advice is needed, have product container or label at hand.  
P102 - Keep out of reach of children.  
P103 - Read label before use.  
P210 - Keep away from ignition sources. No smoking.  
P233 - Keep container tightly closed.  
P240 - Ground/bond container and receiving equipment.  
P241 - Use explosion-proof electrical equipment.  
P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.  
P261 - Avoid breathing vapours.  
P271 - Use only outdoors or in a well-ventilated area.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves/eye protection.
- P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a POISON CENTRE or doctor/physician.  
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P363 - Wash contaminated clothing before reuse.  
P304+P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  
P312 - Call a POISON CENTRE or doctor/physician if you feel unwell.  
P403+P235 - Store in a well-ventilated place. Keep cool.  
P405 - Store locked up.  
P501 - Dispose of contents/container in accordance with local/regional/national/international regulation.

**3. Composition / Information on Ingredients**

Component	CAS/ Identification	Concentration
Methyl ethyl ketone	78-93-3	70-80%
Cyclohexanone	108-94-1	5-10%
Amines, coco alkyl, ethoxylated	61791-14-8	1-5%
Hydrogen bis[1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphtholato(2-)]chromate(1-)	72797-03-6	1-5%
Hydrogen bis[1-[(2-hydroxy-5-nitrophenyl)azo]-2-naphtholato(2-)]chromate(1-)	50497-83-1	1-5%
Hydrogen [1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphtholato(2-)][1-[(2-hydroxy-5-nitrophenyl)azo]-2-naphtholato(2-)]chromate(1-)	52277-71-1	1-5%
7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 7-oxabicyclo[4.1.0]hept-3-ylmethyl ester	2386-87-0	1-5%

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 harmed or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

**Recommended first aid facilities** Ready access to running water is required. Accessible eyewash is required.

**Exposure**

- Swallowed** IF SWALLOWED: Call a POISON CENTRE or doctor/physician if you feel unwell. Rinse mouth. Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor if experiencing any symptoms.
- Eye contact** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor/physician.
- Skin contact** IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get

**Inhaled** medical advice/attention. Wash contaminated clothing before reuse.  
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.

**Advice to Doctor**

Treat symptomatically. May cause sensitisation in susceptible persons.

**5. Firefighting Measures**

**Fire and explosion hazards:** 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.

**Suitable extinguishing substances:** Carbon dioxide, extinguishing powder, foam.

**Unsuitable extinguishing substances:** Unknown.

**Products of combustion:** 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.

**Protective equipment:** Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.

**Hazchem code:** 3YE

**6. Accidental Release Measures**

**Containment** 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 storm water.

**Emergency procedures** 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).

**Clean-up method** 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.

**Disposal** 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.

**Precautions** Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

**7. Storage & Handling**

**Storage** 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.

**Handling** 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 3mg/m<sup>3</sup> for respirable particulates and 10mg/m<sup>3</sup> for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds	Ingredient	WES-TWA*	WES-STEL
	Methyl ethyl ketone	150ppm, 445mg/m <sup>3</sup>	300ppm, 890mg/m <sup>3</sup>
	Cyclohexanone	25ppm, 100mg/m <sup>3</sup>	data unavailable
	Hydrogen bis[1-[(2-hydroxy-4-nitrophenyl)azo]-2-	Cr (III): 0.5mg/m <sup>3</sup>	data unavailable

naphtholato(2-)]chromate(1-)		
Hydrogen bis[1-[(2-hydroxy-5-nitrophenyl)azo]-2-naphtholato(2-)]chromate(1-)	Cr (III): 0.5mg/m <sup>3</sup>	data unavailable
Hydrogen [1-[(2-hydroxy-4-nitrophenyl)azo]-2-naphtholato(2-)]	Cr (III): 0.5mg/m <sup>3</sup>	data unavailable
[1-[(2-hydroxy-5-nitrophenyl)azo]-2-naphtholato(2-)]chromate(1-)	data unavailable	data unavailable

**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 at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. 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**


Protect eyes with goggles, safety glasses or full face mask. Avoid wearing contact lenses. Select eye protection in accordance with AS/NZS 1337.

**Skin**

Avoid any skin contact. Wear overalls, rubber boots and impervious gloves. Protective gloves or suitably resistant material must comply with AS 2161. Replace frequently. Gloves should be checked for tears or holes before use. Protective clothing must comply with AS 2919, AS3765.1 or AS3765.2. PVC or rubber boots must comply with AS/NZS 2210.2 and selected and maintained in accordance with AS/NS2210.1. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking.

**Respiratory**

A respirator when airborne concentrations approach the WES (section 8). Respirators must have filters appropriate to the duty and comply with AS/NZS1716 and selected, used and maintained in accordance with AS/NS 1715. Use a respirator with an organic vapour cartridge and a particulate filter. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary.

**WES Additional Information**

Not applicable

**9. Physical & Chemical Properties**

<b>Appearance</b>	black liquid
<b>Odour</b>	solvent odour
<b>pH</b>	no data
<b>Vapour pressure</b>	no data
<b>Viscosity</b>	no data
<b>Boiling point</b>	>75°C
<b>Volatile materials</b>	83.89%
<b>Freezing / melting point</b>	<-25°C
<b>Solubility</b>	partly soluble in water
<b>Partition coefficient</b>	Log P(o/w) = 0.26
<b>Specific gravity / density</b>	0.882 (20°C)
<b>Flash point</b>	>-9°C
<b>Danger of explosion</b>	no data
<b>Auto-ignition temperature</b>	>400°C
<b>Upper &amp; lower flammable limits</b>	LEL: 1.3%, UEL: 11.5%
<b>Corrosiveness</b>	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 oxidising agents
<b>Substance Specific Incompatibility</b>	None known
<b>Hazardous decomposition products</b>	Oxides of carbon.
<b>Hazardous reactions</b>	None known

## 11. Toxicological Information

### Summary

IF SWALLOWED: may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. The mucous membrane may become irritated.

IF IN EYES: may cause eye damage.

IF ON SKIN: prolonged or repeated exposure may cause mild skin irritation (redness, irritation). The solvent has a degreasing effect on the skin. Sensitised individuals may experience an allergic skin reaction such as dermatitis, hives

IF INHALED: high concentration of vapours may cause headaches, dizziness, tiredness, nausea and vomiting.

### Supporting Data

<b>Acute</b>	<b>Oral</b>	Using LD <sub>50</sub> 's for ingredients, the Acute Toxicity Estimate (ATE) (oral) for the mixture is between 2000 and 5000 mg/kg. Data considered includes: Methyl ethyl ketone 2737 mg/kg (rat), Cyclohexanone 1400 mg/kg (mouse).
	<b>Dermal</b>	Using LD <sub>50</sub> 's for ingredients, the Acute Toxicity Estimate (ATE) (dermal) for the mixture is between 2000 and 5000 mg/kg. Data considered includes: Cyclohexanone 948 mg/kg (rabbit).
	<b>Inhaled</b>	Using LD <sub>50</sub> 's for ingredients, the Acute Toxicity Estimate (ATE) (inhalation) for the mixture is >5mg/L/4h.
	<b>Eye</b>	The mixture is considered to be corrosive to the eye, because some of the ingredients present at >3% are considered eye corrosives.
	<b>Skin</b>	The mixture is not considered to be a skin irritant.
<b>Chronic</b>	<b>Sensitisation</b>	The mixture is considered to be a contact sensitizer, because at least one of the ingredients present in greater than 0.1% is known to be a contact sensitizer.
	<b>Mutagenicity</b>	No ingredient present at concentrations > 0.1% is considered a mutagen.
	<b>Carcinogenicity</b>	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	<b>Reproductive / Developmental</b>	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
	<b>Systemic Aggravation of existing conditions</b>	No ingredient present at concentrations > 1% is considered a target organ toxicant. None known.

## 12. Ecological Data

### Summary

This mixture may be harmful to aquatic life with long lasting effects.

### Supporting Data

<b>Aquatic</b>	Using EC <sub>50</sub> 's for ingredients, the calculated EC <sub>50</sub> for the mixture is between 10 mg/L and 100 mg/L Data considered includes: Cyclohexanone 41.2 mg/l (3days, Dicotyledon), 7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid, 7-oxabicyclo[4.1.0]hept-3-ylmethyl ester LC <sub>50</sub> for freshwater fish: 24 mg/L, EC <sub>50</sub> / LC <sub>50</sub> for freshwater invertebrates: 40 mg/L, EC <sub>50</sub> for freshwater algae 110 mg/L, EC <sub>50</sub> for microorganisms 2 g/L.
<b>Bioaccumulation</b>	No data
<b>Degradability</b>	No data
<b>Soil</b>	No evidence of soil toxicity.
<b>Terrestrial vertebrate</b>	See acute toxicity.
<b>Terrestrial invertebrate</b>	No evidence of toxicity 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 Hazardous Substances (Disposal) Notice 2017 and 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>	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

## 14. Transport Information

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

<b>UN number:</b>	1210	<b>Proper shipping name:</b>	PRINTING INK
<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: HSR002662, Surface Coatings and Colourants (Flammable) Group Standard 2017. All ingredients appear on the New Zealand Inventory of Chemicals NZIoC.

All ingredients appear on the NZIoC.

### 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.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 1000L is stored.
Certified handler	Not required.
Tracking	Not required..
Bunding & secondary containment	Required if > 1000L is stored.
Signage	Required if > 250L is stored.
Location compliance certificate	Required if > 100L (containers >5L), 250L (containers ≤5L), 50L (in use) is stored.
Flammable zone	Must be established if > 100L (closed containers), 25L (decanting), 5L (open occasionally), 1L (in use), stored in any one location is stored.
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 and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

## 16. Other Information

### Abbreviations

<b>Approval Code</b>	Approval HSR002662, Surface Coatings and Colourants (Flammable) Group Standard 2017 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>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>EPA</b>	Environmental Protection Authority (New Zealand)
<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>NZIoC</b>	New Zealand Inventory of Chemicals
<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

**UN Number** United Nations Number  
**WES** Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

**References**

**Data** Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).  
**Controls** EPA notices, [www.epa.govt.nz](http://www.epa.govt.nz), Health and Safety at Work (Hazardous Substances) Regulations 2017, [www.legislation.govt.nz](http://www.legislation.govt.nz)  
**WES** The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – [www.worksafe.govt.nz](http://www.worksafe.govt.nz).  
**Other References:** EU ECHA, ingredients SDS's, ChemIDplus

**Review**

<b>Date</b>	<b>Reason for review</b>
November 2020	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**.

