

WATTYL MDF SANDING SEALER

Chemwatch Material Safety Data Sheet (REVIEW)
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NC317TCP

CHEMWATCH 5066-78
Version No:3

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

WATTYL MDF SANDING SEALER

SYNONYMS

PROPER SHIPPING NAME

NITROCELLULOSE SOLUTION, FLAMMABLE with not more than 12.6% nitrogen, by dry mass, and not more than 55% nitrocellulose
NITROCELLULOSE SOLUTION, FLAMMABLE

PRODUCT USE

Sandable sealer for interior timber finishes. Application is usually by spray atomisation in a ventilated spray booth, after viscosity reduction with thinner.

SUPPLIER

Company: WattyL Granosite	Company: WattyL Pty Ltd
Address:	Address:
Level 1, 68 Waterloo Rd	4 Steel St
North Ryde	Blacktown
NSW, 2113	NSW, 2148
AUS	AUS
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Section 2 - HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE

HAZARDOUS SUBSTANCE. DANGEROUS GOODS. According to the Criteria of NOHSC, and the ADG Code.

POISONS SCHEDULE

S5

RISK

Heating may cause an explosion.
Highly flammable.
Harmful by inhalation and if swallowed.
Irritating to eyes and respiratory system.
May impair fertility.
May cause harm to the unborn child.
HARMFUL-May cause lung damage if swallowed.
Repeated exposure may cause skin dryness and cracking.
Vapours may cause drowsiness and dizziness.
Skin contact may produce health damage*.
Cumulative effects may result following exposure*.
May produce skin discomfort*.
* (limited evidence).

SAFETY

Keep locked up.
Keep away from sources of ignition. No smoking.
Keep container in a well ventilated place.
Avoid exposure - obtain special instructions before use.
To clean the floor and all objects contaminated by this material, use water and detergent.
Keep container tightly closed.
This material and its container must be disposed of in a safe way.
Keep away from food, drink and animal feeding stuffs.
Take off immediately all contaminated clothing.
In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
This material and its container must be disposed of as hazardous waste.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
castor oil/ maleic anhydride copolymer	68308-83-8	10-30
methyl ethyl ketone	78-93-3	30-60
nitrocellulose solution, <= 12.6% nitrogen, LFP	Not avail.	5-15
n- butanol	71-36-3	1-9
industrial methylated spirits (ethanol/methanol mixture)	8013-52-3	1-9
talc	14807-96-6	1-9
di- sec- octyl phthalate	117-81-7	1-5
calcined china clay, low quartz	92704-41-1.	1-5
methyl ethyl ketoxime	96-29-7	<0.5
additives		1-2

Section 4 - FIRST AID MEASURES

SWALLOWED

Rinse mouth out with plenty of water.

For advice, contact a Poisons Information Centre or a doctor.

- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

EYE

If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

Symptoms of vasodilation and reflex tachycardia may present following organic nitrate overdose; most organic nitrates are extensively metabolised by hydrolysis to inorganic nitrites. Organic nitrates and nitrites are readily absorbed through the skin, lungs, mucosa and gastro-intestinal tract.

Following acute or short term repeated exposures to toluene:

- Toluene is absorbed across the alveolar barrier, the blood/air mixture being 11.2/15.6 (at 37 degrees C.) The concentration of toluene, in expired breath, is of the order of 18 ppm following sustained exposure to 100 ppm. The tissue/blood proportion is 1/3 except in

adipose where the proportion is 8/10.

· Metabolism by microsomal mono-oxygenation, results in the production of hippuric acid. This may be detected in the urine in amounts between 0.5 and 2.5 g/24 hr which represents , on average 0.8 gm/gm of creatinine. The biological half-life of hippuric acid is in the order of 1-2 hours.

· Primary threat to life from ingestion and/or inhalation is respiratory failure.

· Patients should be quickly evaluated for signs of respiratory distress (eg cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen. Patients with inadequate tidal volumes or poor arterial blood gases (pO₂ <50 mm Hg or pCO₂ > 50 mm Hg) should be intubated.

· Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial damage has been reported; intravenous lines and cardiac monitors should be established in obviously symptomatic patients. The lungs excrete inhaled solvents, so that hyperventilation improves clearance.

· A chest x-ray should be taken immediately after stabilisation of breathing and circulation to document aspiration and detect the presence of pneumothorax.

· Epinephrine (adrenaline) is not recommended for treatment of bronchospasm because of potential myocardial sensitisation to catecholamines. Inhaled cardioselective bronchodilators (e.g. Alupent, Salbutamol) are the preferred agents, with aminophylline a second choice.

· Lavage is indicated in patients who require decontamination; ensure use.

BIOLOGICAL EXPOSURE INDEX - BEI

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

Determinant	Index	Sampling Time	Comments
o-Cresol in urine	0.5 mg/L	End of shift	B
Hippuric acid in urine	1.6 g/g creatinine	End of shift	B, NS
Toluene in blood	0.05 mg/L	Prior to last shift of workweek	

NS: Non-specific determinant; also observed after exposure to other material
B: Background levels occur in specimens collected from subjects NOT exposed.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Water spray or fog.
- Alcohol stable foam.
- Dry chemical powder.
- Carbon dioxide.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- Consider evacuation (or protect in place).
- Fight fire from a safe distance, with adequate cover.
- If safe, switch off electrical equipment until vapour fire hazard removed.
- Use water delivered as a fine spray to control the fire and cool adjacent area.
- Avoid spraying water onto liquid pools.
- Do not approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.

FIRE/EXPLOSION HAZARD

- Liquid and vapour are highly flammable.
- Severe fire hazard when exposed to heat, flame and/or oxidisers.
- Vapour forms an explosive mixture with air.
- Severe explosion hazard, in the form of vapour, when exposed to flame or spark.
- Vapour may travel a considerable distance to source of ignition.
- Heating may cause expansion / decomposition with violent rupture of containers.
- On combustion, may emit toxic fumes of carbon monoxide (CO).

May emit clouds of acrid smoke.

Other combustion products include:
nitrogen oxides (NO_x).

FIRE INCOMPATIBILITY

Avoid contamination with strong oxidising agents as ignition may result.

HAZCHEM: 2[Y]E**Personal Protective Equipment**

Breathing apparatus.
Chemical splash suit.

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES**MINOR SPILLS**

- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb small quantities with vermiculite or other absorbent material.
- Wipe up.
- Collect residues in a flammable waste container.

MAJOR SPILLS

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- May be violently or explosively reactive.
- Wear breathing apparatus plus protective gloves.
- Prevent, by any means available, spillage from entering drains or water course.
- Consider evacuation (or protect in place).
- No smoking, naked lights or ignition sources.
- Increase ventilation.
- Stop leak if safe to do so.
- Water spray or fog may be used to disperse /absorb vapour.
- Contain spill with sand, earth or vermiculite.
- Use only spark-free shovels and explosion proof equipment.
- Collect recoverable product into labelled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- If contamination of drains or waterways occurs, advise emergency services.

PROTECTIVE ACTIONS FOR SPILL**WARNING**

From IERG (Canada/Australia)
Isolation Distance 25 metres
Downwind Protection Distance 300 metres
IERG Number 14D

FOOTNOTES

- 1 PROTECTIVE ACTION ZONE is defined as the area in which people are at risk of harmful exposure. This assumes that random changes in wind direction confines the vapour plume to an area within 30 degrees either side of the predominant wind direction, resulting in a crosswind protective action distance to the downwind protective action distance.
- 2 PROTECTIVE ACTIONS should be initiated to the extent possible, beginning with those closest to the site and working away from the site in the downwind direction. Within the protective action zone a level vapour concentration may exist resulting in nearly all unprotected persons becoming incapacitated unable to take protective action and/or incurring serious or irreversible health effects.
- 3 INITIAL ISOLATION ZONE is determined as an area, including upwind of the incident, within which a probability of localised wind reversal may expose nearly all persons without appropriate protective life-threatening concentrations of the material.
- 4 SMALL SPILLS involve a leaking package of 200 litres (55 US gallons) or less, such as a drum (jerrycan with inner containers). Larger packages leaking less than 200 litres and compressed gas leaking from a small cylinder are also considered "small spills".
LARGE SPILLS involve many small leaking packages or a leaking package of greater than 200 litres, such as a cargo tank, portable tank or a "one-tonne" compressed gas cylinder.
- 5 Guide 127 is taken from the US DOT emergency response guide book.
- 6 IERG information is derived from CANUTEC - Transport Canada.

EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:
methyl ethyl ketone 3000 ppm
di-sec-octyl phthalate 500 mg/m³

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:
methyl ethyl ketone 300 ppm
di-sec-octyl phthalate 25 mg/m³

other than mild, transient adverse effects without perceiving a clearly defined odour is:
methyl ethyl ketone 300 ppm
di-sec-octyl phthalate 10 mg/m³

The threshold concentration below which most people will experience no appreciable risk of health e
 methyl ethyl ketone 200 ppm
 di-sec-octyl phthalate 5 mg/m³

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

Very Toxic (T+)	>= 0.1%	Toxic (T)	>= 3.0%
R50	>= 0.25%	Corrosive (C)	>= 5.0%
R51	>= 2.5%		
else	>= 10%		

where percentage is percentage of ingredient found in the mixture

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights, heat or ignition sources.
- When handling, DO NOT eat, drink or smoke.
- Vapour may ignite on pumping or pouring due to static electricity.
- DO NOT use plastic buckets.
- Earth and secure metal containers when dispensing or pouring product.
- Use spark-free tools when handling.
- Avoid contact with incompatible materials.
- Keep containers securely sealed.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.

SUITABLE CONTAINER

Packing as supplied by manufacturer. Plastic containers may only be used if approved for flammable liquid. Check that containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

Segregate from.
 strong oxidisers.
 reducing agents and strong alkalis.

STORAGE REQUIREMENTS

- Store in original containers in approved flammable liquid storage area.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- No smoking, naked lights, heat or ignition sources.
- Keep containers securely sealed.
- Store away from incompatible materials in a cool, dry, well-ventilated area.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	Peak ppm	Peak mg/m ³	TWA F/CC
Source	Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	Peak ppm	Peak mg/m ³	TWA F/CC
Australia Exposure Standards	methyl ethyl ketone (Methyl ethyl ketone (MEK))	150	445	300	890			
Australia Exposure	n- butanol (n-					50	152	

Standards	Butyl alcohol)		
Australia Exposure Standards	talc (Soapstone (respirable dust))	3	
Australia Exposure Standards	talc (Talc, (containing no asbestos fibres))	2.5	
Australia Exposure Standards	di- sec- octyl phthalate (Di- sec- octyl phthalate)	5	10
Australia Exposure Standards	calcined china clay, low quartz (Inspirable dust (Not specified))	10	

The following materials had no OELs on our records

- castor oil/ maleic anhydride copolymer: CAS:68308-83-8
- industrial methylated spirits (ethanol/methanol mixture): CAS:8013-52-3
- methyl ethyl ketoxime: CAS:96-29-7

EMERGENCY EXPOSURE LIMITS

Material	Revised IDLH Value (mg/m3)	Revised IDLH Value (ppm)
methyl ethyl ketone		3,000 [Unch]
n-butanol		1,400 [LEL]
talc	3,000	
di-sec-octyl phthalate	5,000	

NOTES

Values marked LEL indicate that the IDLH was based on 10% of the lower explosive limit for safety considerations even though the relevant toxicological data indicated that irreversible health effects or impairment of escape existed only at higher concentrations.

ODOUR SAFETY FACTOR (OSF)

OSF=2 (industrial methylated spirits (ethanol/methanol mixture))

Exposed individuals are NOT reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class C, D or E.

The Odour Safety Factor (OSF) is defined as:

OSF= Exposure Standard (TWA) ppm/ Odour Threshold value (OTV) ppm

Classification into classes follows:

Class	OSF	Description
A	550	Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV-TWA for example) is being reached, even when distracted by working activities
B	26-550	As "A" for 50-90% of persons being distracted
C	1-26	As "A" for less than 50% of persons being distracted
D	0.18-1	10-50% of persons aware of being tested perceive by smell that the Exposure Standard is being reached
E	<0.18	As "D" for less than 10% of persons aware of being tested

MATERIAL DATA

Not available. Refer to individual constituents.

INGREDIENT DATA

METHYL ETHYL KETONE:

N-BUTANOL:

Exposed individuals are reasonably expected to be warned, by smell, that the Exposure

Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class A or B.

The Odour Safety Factor (OSF) is defined as:

OSF= Exposure Standard (TWA) ppm/ Odour Threshold value (OTV) ppm

Classification into classes follows:

Class	OSF	Description
A	550	Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV-TWA for example) is being reached, even when distracted by working activities
B	26-550	As "A" for 50-90% of persons being distracted
C	1-26	As "A" for less than 50% of persons being distracted
D	0.18-1	10-50% of persons aware of being tested perceive by smell that the Exposure Standard is being reached
E	<0.18	As "D" for less than 10% of persons aware of being tested

CASTOR OIL/ MALEIC ANHYDRIDE COPOLYMER:

METHYL ETHYL KETOXIME:

No exposure limits set by NOHSC or ACGIH.

METHYL ETHYL KETONE:

Odour Threshold Value: Variously reported as 2 ppm and 4.8 ppm

Odour threshold: 2 ppm (detection); 5 ppm (recognition)

25 ppm (easy recognition); 300 ppm IRRITATING

Exposures at or below the recommended TLV-TWA are thought to prevent injurious systemic effects and to minimise objections to odour and irritation. Where synergism or potentiation may occur stringent control of the primary toxin (e.g. n-hexane or methyl butyl ketone) is desirable and additional consideration should be given to lowering MEK exposures.

NITROCELLULOSE SOLUTION, <= 12.6% NITROGEN, LFP:

None assigned. Refer to individual constituents.

N-BUTANOL:

Odour Threshold Value: 0.12-3.4 ppm (detection), 1.0-3.5 ppm (recognition)

NOTE: Detector tubes for n-butanol, measuring in excess of 5 ppm are commercially available.

Exposure at or below the TLV-TWA is thought to provide protection against hearing loss due to vestibular and auditory nerve damage in younger workers and to protect against the significant risk of headache and irritation.

25 ppm may produce mild irritation of the respiratory tract

50 ppm may produce headache and vertigo.

Higher concentrations may produce marked irritation, sore throat, coughing, nausea, shortness of breath, pulmonary injury and central nervous system depression characterised by headache, dizziness, dullness and drowsiness.

6000 ppm may produce giddiness, prostration, narcosis, ataxia, and death.

INDUSTRIAL METHYLATED SPIRITS (ETHANOL/METHANOL MIXTURE):

Not available

TALC:

Most health problems associated with occupational exposure to talcs appear to evolve mostly from the nonplatiform content of the talc being mined or milled (being the asbestos-like amphiboles, serpentines (asbestiformes) and other minerals in the form of acicular, prismatic and fibrous crystals including, possibly, asbestos).

Because of severe health effects associated with exposures to asbestos, regulatory agencies tend to regard all elongate mineral crystal particles, whether prismatic, acicular, fibrous, as asbestos - the only provision is the particles have an aspect ratio (length to diameter) of 3:1 or greater. Consideration is also given to their respirability, their width being less than or equal to 3 µm. Only limited data, however, exists on the health

effects of elongate mineral particles having prismatic, acicular or fibrous (non-asbestos) forms. Experimental evidence indicates that the carcinogen potential of mineral fibres is related to the size class with diameter of 8 µm with shorter, thicker particles having little biological activity.

Dust of nonfibrous talc, consisting entirely of platiform talc crystals and containing no asbestos poses a relatively small respiratory hazard. Difficulties exist, however, in the determination of asbestos as cleavage fragments of prismatic or acicular crystals, nonasbestos fibres and asbestos fibres are very similar. Subject to an accurate determination of asbestos and crystalline silica, exposure at or below the recommended TLV-TWA is thought to protect workers from the significant risk of nonmalignant respiratory effects associated with talc dusts.

DI-SEC-OCTYL PHTHALATE:
Not available

CALCINED CHINA CLAY, LOW QUARTZ:
CEL TWA: 2 mg/m³

METHYL ETHYL KETOXIME:

CEL TWA: 10 ppm, 36 mg/m³ (compare WEEL-TWA)

OEL-TWA: 0.28 ppm, 1 mg/m³ ORICA Australia quoting DSM Chemicals

Saturated vapour concentration: 1395 ppm at 20 deg. C.

MEKO produces haemolytic anaemia in animals regardless of the route of exposure. Higher doses produce transient central nervous system depression. In the absence of chronic data and because minimal effects were seen at 25 mg/kg in a 13-week oral study in rats, a workplace environmental exposure level (WEEL) of 10 ppm has been proposed by the AIHA. One industrial hygiene study indicated that MEKO exposures during use of alkyd paints are less than 1 ppm, although they may reach 2 ppm when using a roller. With brush application and some ventilation, the average level was 0.3-0.4 ppm: with spraying it was 0.3 to 0.8 ppm. Mice and rats show destruction to nasal tissues at 15 ppm; these effects are thought to be irreversible at 75 ppm.

CAUTION: This substance is classified by the NOHSC as Category 3 Suspected of having carcinogenic potential.

PERSONAL PROTECTION

EYE

- Safety glasses.
- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET

- Barrier cream.
- Neoprene rubber gloves.
- Butyl rubber gloves.
- Viton gloves or Nitrile rubber gloves.
- Safety footwear.

OTHER

- Overalls.
- Barrier cream
- Eyewash unit.

RESPIRATOR

Respiratory protection is required when ANY "Worst Case" vapour-phase concentration is exceeded (see Computer Prediction in "Exposure Standards").

Protection Factor (Min)	Half-Face Respirator	Full-Face Respirator
10	A-AUS	-
X	A-PAPR	-
ES	-AUS	-

50 X ES	-	A-AUS
	-	A- PAPR- AUS
100 X ES	-	A-2
	-	A- PAPR-2

^ - Full-face.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.
For further information consult site specific CHEMWATCH data (if available), or your Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

Use in a well-ventilated area or Local exhaust ventilation may be required for safe working, i.e. to keep exposures below required standards, otherwise PPE is required. Spraying to be carried out in conditions conforming to local state regulations. Unprotected personnel must vacate the spraying area. Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. An approved self contained breathing apparatus (SCBA) may be required in some situations. Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:	Air Speed:
solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25-0.5 m/s (50-100 f/min.)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5-1 m/s (100-200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance

from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Milky viscous highly flammable liquid with a strong ketone odour; does not mix with water

PHYSICAL PROPERTIES

Liquid.

Does not mix with water.

Floats on water.

Molecular weight: Not applicable.
 Melting Range (?C): Not available.
 Solubility in water (g/L): Partly miscible
 pH (1% solution): Not available
 Volatile Component (%vol): 58-63
 Relative Vapour Density (air=1): >1
 Lower Explosive Limit (%): Not available
 Autoignition Temp (?C): Not available
 State: Liquid

Boiling Range (?C): 60-117
 Specific Gravity (water=1): 0.92-0.96
 pH (as supplied): Not applicable
 Vapour Pressure (kPa): Not available
 Evaporation Rate: Not available
 Flash Point (?C): -6.7 (MEK)
 Upper Explosive Limit (%): Not available
 Decomposition Temp (?C): Not available
 Viscosity: Not available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

The liquid is highly discomforting and harmful if swallowed. Ingestion may result in nausea, pain, vomiting. Vomit entering the lungs by aspiration may cause potentially lethal chemical pneumonitis.
 considered an unlikely route of entry in commercial/industrial environments.

EYE

The liquid is highly discomforting to the eyes and is capable of causing pain and severe conjunctivitis. Corneal injury may develop, with possible permanent impairment of vision, if not promptly and adequately treated.
 The vapour is discomforting to the eyes.

SKIN

The liquid is discomforting to the skin and may cause burning sensation and is capable of causing skin reactions which may lead to dermatitis.
 Toxic effects may result from skin absorption.
 Exposure limits with "skin" notation indicate that vapour and liquid may be absorbed through intact skin. Absorption by skin may readily exceed vapour inhalation exposure. Symptoms for skin absorption are the same as for inhalation. Contact with eyes and mucous membranes may also contribute to overall exposure and may also invalidate the exposure standard.
 Bare unprotected skin should not be exposed to this material.
 The material may accentuate any pre-existing skin condition.
 The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

INHALED

The vapour is highly discomforting to the upper respiratory tract.
 Inhalation hazard is increased at higher temperatures.
 Acute effects from inhalation of high concentrations of vapour are pulmonary irritation, including coughing, with nausea; central nervous system depression - characterised by headache and dizziness, increased reaction time, fatigue and loss of co-ordination and

may cause dizziness, disorientation, mental confusion, slurred speech.
If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are usually by inhalation of vapour and skin contact/absorption.
Prolonged or continuous skin contact with the liquid may cause defatting with drying, cracking, irritation and dermatitis following.
Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS].
As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

TOXICITY AND IRRITATION

None assigned. Refer to individual constituents.

CASTOR OIL/ MALEIC ANHYDRIDE COPOLYMER:

No significant acute toxicological data identified in literature search.

METHYL ETHYL KETONE:

TOXICITY

Oral (rat) LD50: 2737 mg/kg
Inhalation (human) TClO: 100 ppm/5 m
Inhalation (rat) LD50: 23500 mg/m³/8 hr
Dermal (rabbit) LD50: 6480 mg/kg
Inhalation (man) TClO: 10 mg/m³/6 hr
Inhalation (rat) LC50: 50100 mg/m³/8 hr
Dermal (rabbit) LD50: 20000 mg/kg

IRRITATION

Eye (human): 350 ppm - Irritant
Eye (rabbit): 80 mg - Irritant
Skin (rabbit): 402 mg/24 hr - Mild
Skin (rabbit): 13.78mg/24 hr Open
- Mild

NITROCELLULOSE SOLUTION, <= 12.6% NITROGEN, LFP:
Not available. Refer to individual constituents.

N-BUTANOL:

TOXICITY

Oral (rat) LD50: 790 mg/kg
Inhalation (human) TClO: 25 ppm
Inhalation (rat) LC50: 8000 ppm/4h
Dermal (rabbit) LD50: 3400 mg/kg
Inhalation (human) TClO: 86000 mg/m³

IRRITATION

Skin (rabbit): 405 mg/24h- Moderate
Eye (human): 50 ppm - Irritant
Eye (rabbit): 1.6 mg- SEVERE
Eye (rabbit): 24 mg/24h- SEVERE

INDUSTRIAL METHYLATED SPIRITS (ETHANOL/METHANOL MIXTURE):

Not available. Refer to individual constituents.

TALC:

TOXICITY

Skin (human): 0.3 mg/3d- I Mild

The substance is classified by IARC as Group 3:

NOT classifiable as to its carcinogenicity to humans.

Evidence of carcinogenicity may be inadequate or limited in animal testing.

DI-SEC-OCTYL PHTHALATE:

TOXICITY

Oral (rat) LD50: 30000 mg/kg
Oral (human) TDLo: 143 mg/kg
Oral (mouse) LD50: 1500 mg/kg
Oral (rabbit) LD50: 34000 mg/kg
Dermal (rabbit) LD50: 25000 mg/kg
Oral (guinea) pig: LD50 26000 mg/kg
Dermal (g.pig) LD50: 10000 mg/kg
Oral (rat) NOAEL: 28.9- 36.1 mg/kg/day

IRRITATION

Skin (rabbit): 500 mg/24h Mild
Eye (rabbit): 500 mg/24h Mild

Gastrointestinal changes, respiratory system changes, somnolence, haemorrhage, necrotic changes in GI tract, lowered blood pressure, liver, endocrine tumours, foetotoxicity, paternal effects, maternal effects, specific developmental abnormalities (hepatobiliary system, musculoskeletal system, cardiovascular system, urogenital system, central nervous system, eye/ear), foetolethality recorded.

NOTE: Substance has been shown to be mutagenic in at least one assay, or belongs to a family of chemicals producing damage or change to cellular DNA.

The substance is classified by IARC as Group 3:

NOT classifiable as to its carcinogenicity to humans.

Evidence of carcinogenicity may be inadequate or limited in animal testing.

Tenth Annual Report on Carcinogens: Substance anticipated to be Carcinogen [National Toxicology Program: U.S. Dep. of Health & Human Services 2002].

CALCINED CHINA CLAY, LOW QUARTZ:

No significant acute toxicological data identified in literature search.

METHYL ETHYL KETOXIME:

TOXICITY

Oral (rat) LD50: 930 mg/kg
Subcutaneous (rat) LD50: 2702 mg/kg
Inhalation (rat) LC50: >4.83 mg/l *
Intraperitoneal (mouse) LD50: 200 mg/kg
Dermal (rabbit) LD50: >1000 mg/kg *

IRRITATION

Eye (rabbit): 0.1 ml - SEVERE

Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the

contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.
Mammalian lymphocyte mutagen *Huls Canada

MATERIAL	CARCINOGEN	REPROTOXIN	SENSITISER	SKIN
methyl ethyl ketone		ILOE1		
talc	IARC:3			
di- sec- octyl phthalate	IARC:3 NTPB			

REPROTOXIN

ILOE1: ILO Chemicals in the electronics industry that have toxic effects on reproduction: methyl ethyl ketone

CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: talc Category: 3

CARCINOGEN

IARC: International Agency for Research on Cancer (IARC) Carcinogens: di-sec-octyl phthalate Category: 3

CARCINOGEN

NTPB: US National Toxicology Program (NTP) 11th Report Part B. Reasonably Anticipated to be a Human Carcinogen: di-sec-octyl phthalate Category:

Section 12 - ECOLOGICAL INFORMATION

No data for watty1 MDF Sanding Sealer.
Refer to data for ingredients, which follows:

METHYL ETHYL KETONE:

Hazardous Air Pollutant:	Yes
Fish LC50 (96hr.) (mg/l):	1690- 5640
Algae IC50 (72hr.) (mg/l):	110- 4300
log Kow (Prager 1995):	0.26- 0.29
log Kow (Sangster 1997):	0.29
log Pow (Verschueren 1983):	0.26
BOD5:	1.92
COD:	2.2
ThOD:	2.44
Half- life Soil - High (hours):	168
Half- life Soil - Low (hours):	24
Half- life Air - High (hours):	642
Half- life Air - Low (hours):	64.2
Half- life Surface water - High (hours):	168
Half- life Surface water - Low (hours):	24
Half- life Ground water - High (hours):	336
Half- life Ground water - Low (hours):	48
Aqueous biodegradation - Aerobic - High (hours):	168
Aqueous biodegradation - Aerobic - Low (hours):	24
Aqueous biodegradation - Anaerobic - High (hours):	672
Aqueous biodegradation - Anaerobic - Low (hours):	96
Aqueous biodegradation - Removal secondary treatment - High (hours):	100%
Aqueous biodegradation - Removal secondary treatment - Low (hours):	86%
Photooxidation half- life water - High (hours):	7.10E+05
Photooxidation half- life water - Low (hours):	1.80E+04
Photooxidation half- life air - High (hours):	642
Photooxidation half- life air - Low (hours):	64.2
First order hydrolysis half- life (hours):	>50 YR

DO NOT discharge into sewer or waterways.

log Kow: 0.26-0.69

log Koc: 0.69

Koc: 34

Half-life (hr) air: 2.3

Half-life (hr) H2O surface water: 72-288

Henry's atm m³ /mol: 1.05E-05

BOD 5 if unstated: 1.5-2.24,46%

COD: 2.2-2.31,100%

ThOD: 2.44

BCF: 1

Toxicity Fish: LC50(96)13.16-277.8mg/L

Toxicity invertebrate: LD0 1g/L

Bioaccumulation: not sig

Anaerobic effects: some degrad

Effects on algae and plankton: algae LD0 125mg/L

Degradation Biological: sig

processes Abiotic: photox,RxnOH*,hydr1 photol/deg notsig

N-BUTANOL:

Fish LC50 (96hr.) (mg/l):	1910- 1940
Daphnia magna EC50 (48hr.) (mg/l):	1983
Algae IC50 (72hr.) (mg/l):	650
log Kow (Prager 1995):	0.88
log Kow (Sangster 1997):	0.84
log Pow (Verschueren 1983):	0.88
Half- life Soil - High (hours):	168
Half- life Soil - Low (hours):	24
Half- life Air - High (hours):	87.7
Half- life Air - Low (hours):	8.8

Half- life Surface water - High (hours):	168
Half- life Surface water - Low (hours):	24
Half- life Ground water - High (hours):	1296
Half- life Ground water - Low (hours):	48
Aqueous biodegradation - Aerobic - High (hours):	168
Aqueous biodegradation - Aerobic - Low (hours):	24
Aqueous biodegradation - Anaerobic - High (hours):	1296
Aqueous biodegradation - Anaerobic - Low (hours):	96
Aqueous biodegradation - Removal secondary treatment - High (hours):	99%
Aqueous biodegradation - Removal secondary treatment - Low (hours):	31%
Photooxidation half- life water - High (hours):	104000
Photooxidation half- life water - Low (hours):	2602
Photooxidation half- life air - High (hours):	87.7
Photooxidation half- life air - Low (hours):	8.8

DO NOT discharge into sewer or waterways.

log Kow: 0.88

Koc: 71.6

Half-life (hr) air: 5-52

Half-life (hr) H₂O surface water: 2.4-3022

Henry's atm m³ /mol: 5.57E-06

BOD 5 if unstated: 1.1-2.04,33%

COD: 1.9,92%

ThOD: 2.594

Toxicity Fish: LD100(24)1.4g/L,LC50(96)1.91g/L

Toxicity invertebrate: cell mult. inhib.8-650mg/L

Bioaccumulation: not sig

Nitrif. inhib.: 50% inhib at 8200mg/L

Effects on algae and plankton: cell mult. inhib.100-875mg/L

Degradation Biological: sig

processes Abiotic: RxnOH*

INDUSTRIAL METHYLATED SPIRITS (ETHANOL/METHANOL MIXTURE):

DO NOT discharge into sewer or waterways.

Biodegradable.

TALC:

DO NOT discharge into sewer or waterways.

DI-SEC-OCTYL PHTHALATE:

Half- life Soil - High (hours):	550
Half- life Soil - Low (hours):	120
Half- life Air - High (hours):	29
Half- life Air - Low (hours):	2.9
Half- life Surface water - High (hours):	550
Half- life Surface water - Low (hours):	120
Half- life Ground water - High (hours):	9336
Half- life Ground water - Low (hours):	240
Aqueous biodegradation - Aerobic - High (hours):	550
Aqueous biodegradation - Aerobic - Low (hours):	120
Aqueous biodegradation - Anaerobic - High (hours):	9336
Aqueous biodegradation - Anaerobic - Low (hours):	980
Aqueous biodegradation - Removal secondary treatment - High (hours):	91%
Aqueous biodegradation - Removal secondary treatment - Low (hours):	70%
Aqueous photolysis half- life - High (hours):	4800
Aqueous photolysis half- life - Low (hours):	3500
Aqueous photolysis half- life - High (hours):	4800
Aqueous photolysis half- life - Low (hours):	3500
Photooxidation half- life water - High (hours):	1.40E+04
Photooxidation half- life water - Low (hours):	1056
Photooxidation half- life air - High (hours):	29
Photooxidation half- life air - Low (hours):	2.9
Half- life Soil - High (hours):	550
Half- life Soil - Low (hours):	120
Half- life Air - High (hours):	29
Half- life Air - Low (hours):	2.9
Half- life Surface water - High (hours):	550
Half- life Surface water - Low (hours):	120
Half- life Ground water - High (hours):	9336
Half- life Ground water - Low (hours):	240
Aqueous biodegradation - Aerobic - High (hours):	550
Aqueous biodegradation - Aerobic - Low (hours):	120
Aqueous biodegradation - Anaerobic - High (hours):	9336
Aqueous biodegradation - Anaerobic - Low (hours):	980
Aqueous biodegradation - Removal secondary treatment - High (hours):	91%
Aqueous biodegradation - Removal secondary treatment - Low (hours):	70%
Aqueous photolysis half- life - High (hours):	4800
Aqueous photolysis half- life - Low (hours):	3500
Aqueous photolysis half- life - High (hours):	4800
Aqueous photolysis half- life - Low (hours):	3500
Photooxidation half- life water - High (hours):	1.40E+04
Photooxidation half- life water - Low (hours):	1056
Photooxidation half- life air - High (hours):	29
Photooxidation half- life air - Low (hours):	2.9

The phthalate esters are distributed throughout the environment ubiquitously. They are found complexed with fulvic acid components of the humic substances in soil and marine and estuarine waters. Fulvic acid appears to act as a solubiliser for the otherwise insoluble ester and serves to mediate its transport and mobilisation in water or immobilisation in soil. Phthalate esters have been found in open ocean environments, in deep sea jelly fish, Atlantic herring and in mackerel. Phthalic ester plasticisers are

clearly recognised as general contaminants of almost every soil and water ecosystem. In general they have low acute toxicity but the weight of evidence supporting their carcinogenicity is substantial. Other subtle chronic effects have also been reported. As little as 4 ug/ml in culture medium is lethal to chick embryo heart cells. This concentration is similar to that reached in human blood stored in vinyl plastic bags for as little as one day. Some phthalates (notably di2-ethylhexyl phthalate and dibutyl phthalate) may also be detrimental to the reproduction of the water flea (*Daphnia magna*), zebra fish and guppies. As phthalates are present in drinking water and food, concerns have been raised about their long term effects on humans.

CALCINED CHINA CLAY, LOW QUARTZ:
 Persistence and degradability: Non biodegradable.
 Bioaccumulation: Not assimilated.
 Aquatic Toxicity: Negligible. [Manufacturer]

METHYL ETHYL KETOXIME:
 Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.
 Wastes resulting from use of the product must be disposed of on site or at approved waste sites.
 DO NOT discharge into sewer or waterways.
 Toxicity invertebrate: tox bac 0.63g/l, protozoa 2.5g/l
 Effects on algae and plankton: tox to algae at 1g/l
 Fish LC50 (96 h): >560 mg/l
 Daphnia EC50 (48 h): 750 mg/l
 Easily biodegradable.

Section 13 - DISPOSAL CONSIDERATIONS

- Consult manufacturer for recycling options and recycle where possible .
- Consult State Land Waste Management Authority for disposal.
- Incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION

Labels Required: FLAMMABLE LIQUID
 HAZCHEM: 2[Y]E

UNDG:
 Dangerous Goods Class: 3 Subrisk: N
 UN Number: 2059 Packing Group: I

Shipping Name: NITROCELLULOSE SOLUTION, FLAMMABLE with not more than 12.6% nitrogen, by dry mass, and not more than 55% nitrocellulose

Air Transport IATA:

ICAO/IATA Class: 3 ICAO/IATA Subrisk: N
 UN/ID Number: 2059 Packing Group: I
 ERG Code: 3H

Shipping Name: NITROCELLULOSE SOLUTION, FLAMMABLE WITH 12.6% OR LESS NITROGEN, BY DRY WEIGHT, AND 55% OR LESS NITROCELLULOSE

Maritime Transport IMDG:

IMDG Class: 3 IMDG Subrisk: Nor
 UN Number: 2059 Packing Group: II
 EMS Number: F-E,S-D

Shipping Name: NITROCELLULOSE SOLUTION, FLAMMABLE with not more than 12.6% nitrogen, by dry mass, and not more than 55% nitrocellulose

Section 15 - REGULATORY INFORMATION

POISONS SCHEDULE: S5

REGULATIONS

castor oil/ maleic anhydride copolymer (CAS: 68308-83-8) is found on the following regulatory lists;
 Australia Inventory of Chemical Substances (AICS)

methyl ethyl ketone (CAS: 78-93-3) is found on the following regulatory lists;
 Australia - Australia New Zealand Food Standards Code - Processing Aids - Permitted extraction solvents
 Australia Exposure Standards
 Australia High Volume Industrial Chemical List (HVICL)
 Australia Illicit Drug Reagents/Essential Chemicals - Category III
 Australia Inventory of Chemical Substances (AICS)
 Australia National Pollutant Inventory
 Australia Poisons Schedule
 Australia Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP) - Schedule 5

IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk
 OECD Representative List of High Production Volume (HPV) Chemicals
 United Nations List of Precursors and Chemicals Frequently used in the Illicit
 Manufacture of Narcotic Drugs and Psychotropic Substances Under International Control -
 Table II (English)

nitrocellulose solution, <= 12.6% nitrogen, LFP (CAS No:Not avail):
 No regulations applicable

n-butanol (CAS: 71-36-3) is found on the following regulatory lists;
 Australia - Australia New Zealand Food Standards Code - Processing Aids - Permitted
 antifoam agents
 Australia - Australia New Zealand Food Standards Code - Processing Aids - Permitted
 extraction solvents
 Australia Exposure Standards
 Australia High Volume Industrial Chemical List (HVICL)
 Australia Inventory of Chemical Substances (AICS)
 IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances
 International Council of Chemical Associations (ICCA) - High Production Volume List
 OECD Representative List of High Production Volume (HPV) Chemicals

industrial methylated spirits (ethanol/methanol mixture) (CAS: 8013-52-3) is found on the
 following regulatory lists;
 Australia Inventory of Chemical Substances (AICS)
 Australia Poisons Schedule

talc (CAS: 14807-96-6) is found on the following regulatory lists;
 Australia - Australia New Zealand Food Standards Code - Food Additives - Schedule 2
 Miscellaneous additives permitted in accordance with GMP in processed foods specified in
 Schedule 1
 Australia - Australia New Zealand Food Standards Code - Processing Aids - Permitted
 carriers, solvents and diluents
 Australia - Australia New Zealand Food Standards Code - Processing Aids - Permitted
 lubricants, release and anti-stick agents
 Australia Exposure Standards
 Australia High Volume Industrial Chemical List (HVICL)
 Australia Inventory of Chemical Substances (AICS)
 CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food
 in General, Unless Otherwise Specified, in Accordance with GMP
 International Agency for Research on Cancer (IARC) Carcinogens
 OECD Representative List of High Production Volume (HPV) Chemicals

di-sec-octyl phthalate (CAS: 117-81-7) is found on the following regulatory lists;
 Australia - Australian Capital Territory - Environment Protection Regulation: Ambient
 environmental standards (Domestic water supply - organic compounds)
 Australia - Australian Capital Territory Environment Protection Regulation Ecosystem
 maintenance - Organic chemicals - Non-pesticide anthropogenic organics
 Australia - Australian Capital Territory Environment Protection Regulation Pollutants
 entering waterways - Domestic water quality
 Australia Exposure Standards
 Australia High Volume Industrial Chemical List (HVICL)
 Australia Inventory of Chemical Substances (AICS)
 Australia National Pollutant Inventory
 IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk
 International Agency for Research on Cancer (IARC) Carcinogens
 OECD Representative List of High Production Volume (HPV) Chemicals
 OSPAR List of Chemicals for Priority Action
 OSPAR List of Substances of Possible Concern
 UNEP Montreal Protocol Ozone Depletors - Annex C
 WHO Guidelines for Drinking-water Quality - Guideline values for chemicals that are of
 health significance in drinking-water

calcined china clay, low quartz (CAS: 92704-41-1) is found on the following regulatory
 lists;
 Australia Exposure Standards
 OECD Representative List of High Production Volume (HPV) Chemicals

methyl ethyl ketoxime (CAS: 96-29-7) is found on the following regulatory lists;
 Australia Inventory of Chemical Substances (AICS)
 International Council of Chemical Associations (ICCA) - High Production Volume List
 OECD Representative List of High Production Volume (HPV) Chemicals

No data available for nitrocellulose solution, <= 12.6% nitrogen, LFP as CAS: Not avail.

Section 16 - OTHER INFORMATION

REPRODUCTIVE HEALTH GUIDELINES

Ingredient	ORG	UF	Endpoi nt	CR	Adeq TLV
methyl ethyl ketone	590 mg/m3	NA	NA	NA	Yes

These exposure guidelines have been derived from a screening level of risk assessment and
 should not be construed as unequivocally safe limits. ORGS represent an 8-hour time
 -weighted average unless specified otherwise.
 CR = Cancer Risk/10000; UF = Uncertainty factor;
 TLV believed to be adequate to protect reproductive health:
 LOD: Limit of detection
 Toxic endpoints have also been identified as:
 D = Developmental; R = Reproductive; TC = Transplacental carcinogen
 Jankovic J., Drake F.: A Screening Method for Occupational Reproductive
 American Industrial Hygiene Association Journal 57: 641-649 (1996).

EXPOSURE STANDARD FOR MIXTURES

"Worst Case" computer-aided prediction of vapour components/concentrations:

Composite Exposure Standard for Mixture (TWA) (mg/m³): 36 mg/m³

If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be overexposed.

Component Breathing Zone ppm Breathing Zone mg/m³ Mixture Conc: (%).

Component	Breathing zone (ppm)	Breathing Zone (mg/m ³)	Mixture Conc (%)
methyl ethyl ketoxime	10.00	36.0000	0.5

Operations which produce a spray/mist or fume/dust, introduce particulates to the breathing zone.

If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be overexposed.

At the "Composite Exposure Standard for Mixture" (TWA) (mg/m³): 0.5 mg/m³

Component Breathing Zone ppm Breathing Zone mg/m³ Mixture Conc (%).

Component	Breathing Zone (mg/m ³)	Concentration (%)
calcined china clay, low quartz	72.0000	1.0

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