



Material Safety Data Sheet

Product Name: Solvent Degreaser

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Supplier Name TRU-BLU OIL AUSTRALIA PTY LTD
Address 6 Dunlop Court, Bayswater, Victoria, AUSTRALIA, 3153
Telephone (03) 9720 4400
Fax (03) 9720 5821
Emergency 0412 609 722
Email technical@trubluoil.com.au
Web Site <http://www.trubluoil.com.au/>

Use(s) Degreasing Fluid
SDS Date 15/06/2015

Emergency Phone Number: 000 Fire Brigade and Police (available in Australia only).
Poisons Information Centre: 13 11 26 (available in Australia only).

This Material Safety Data Sheet (MSDS) is issued by the Supplier in accordance with National standards and guidelines from the Australian Safety and Compensation Council (ASCC, formerly National Occupational Health and Safety Commission - NOHSC). The information in it must not be altered, deleted or added to. The Supplier will not accept any responsibility for any changes made to its MSDS by any other person or organization. The Supplier will issue a new MSDS when there is a change in product specifications and/or ASCC standards, codes, guidelines, or Regulations.

2. HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE: Classified as **Hazardous** according to the criteria of the Australian Safety and Compensation Council ASCC (formerly NOHSC) Approved Criteria For Classifying Hazardous Substances [NOHSC:1008] 3rd Edition.

Solvent Degreaser is classified as **Dangerous good** according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Risk Phrases

Flammable
Irritating to skin
Harmful danger of serious damage to health by prolonged exposure through inhalation. HARMFUL- May cause lung damage if swallowed. Inhalation skin contact and/or ingestion may produce health damage.*
Cumulative effects may result following exposure*
May produce discomfort of the eyes and respiratory tract. Limited evidence of carcinogenic effect*
May possibly be harmful to foetus/embryo*
Vapours potentially cause drowsiness and dizziness. *

Safety Phrases

Do not breathe gas /fumes /vapour/ spray.
Use only in well ventilated areas.

* -limited evidence

3. COMPOSITION/ INFORMATION ON INGREDIENTS

Ingredient	Formula	CAS No.	Content
kerosine, (petroleum), hydrodesulfurised	Not Available	64742-81-0	>95%
alcohols C12- 15 ethoxylated	Not Available	68131-39-5	<5%
non-hazardous ingredients	Not Available	Balance	

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre.

Swallowed:

- 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.

Avoid giving milk or oils.
Avoid giving alcohol.

Eyes:

For advice, contact a Poisons Information Centre or a doctor. If this product comes in contact with the eyes:

- Wash out immediately with fresh 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.
- If pain persists or recurs seek medical attention.
- 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.

First Aid Facilities: First aid kits, safety showers, eye wash stations

Advice to Doctor: Any material aspirated during vomiting may produce lung injury. Therefore emesis should not be induced mechanically or pharmacologically. Mechanical means should be used if it is considered necessary to evacuate the stomach contents; these include gastric lavage after endotracheal intubation. If spontaneous vomiting has occurred after ingestion, the patient should be monitored for difficult breathing, as adverse effects of aspiration into the lungs may be delayed up to 48 hours.
For acute or short term repeated exposures to petroleum distillates or related hydrocarbons:

- Primary threat to life, from pure petroleum distillate ingestion and/or inhalation, is respiratory failure.
- Patients should be quickly evaluated for signs of respiratory distress (e.g. cyanosis, tachypnoea, intercostal retraction, obtundation) and given oxygen.
- Patients with inadequate tidal volumes or poor arterial blood gases (pO₂ 50 mm Hg) should be intubated.
- Arrhythmias complicate some hydrocarbon ingestion and/or inhalation and electrocardiographic evidence of myocardial injury 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 (adrenalin) 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 of cuffed endotracheal tube in adult patients. [Ellenhorn and Barceloux: Medical Toxicology].

5. FIRE FIGHTING MEASURES

Flammability:	<ul style="list-style-type: none">· Liquid and vapour are flammable.· Moderate fire hazard when exposed to heat or flame.· Vapour forms an explosive mixture with air.· Moderate explosion hazard when exposed to heat or flame.· Vapour may travel a considerable distance to source of ignition.· Heating may cause expansion or decomposition leading to violent rupture of containers.· On combustion, may emit toxic fumes of carbon monoxide (CO). Combustion products include: carbon dioxide (CO₂), other pyrolysis products typical of burning organic material.
Suitable extinguishing media:	<p>May emit clouds of acrid smoke.</p> <ul style="list-style-type: none">· Foam.· Dry chemical powder.· BCF (where regulations permit).· Carbon dioxide.· Water spray or fog - Large fires only..
Hazards from combustion products: Special protective precautions and equipment for fire fighters:	<p>Burning can produce carbon monoxide and/or carbon dioxide.</p> <ul style="list-style-type: none">· 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.
HAZCHEM Code:	3Y

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedure: MINOR SPILLS

- Slippery when spilt.
- 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

- Slippery when spilt.
- 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.

Product Name: Solvent Degreaser

- 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.

7. STORAGE AND HANDLING

Handling & Storage: · **PROCEDURE FOR HANDLING**

DO NOT allow clothing wet with material to stay in contact with skin.

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of overexposure 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 or ignition sources.
- Avoid generation of static electricity.
- DO NOT use plastic buckets.
- Earth all lines and equipment.
- Use spark-free tools when handling.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- 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.
- For low viscosity materials (i) : Drums and jerry cans must be of the non-removable head type. (ii)
: Where a can is to be used as an inner package, the can must have a screwed enclosure.

- For materials with a viscosity of at least 2680 cSt. (23 deg. C)
- For manufactured product having a viscosity of at least 250 cSt. (23 deg. C)
- Manufactured product that requires stirring before use and having a viscosity of at least 20 cSt (25 deg. C)
- (i) : Removable head packaging;
- (ii) : Cans with friction closures and
- (iii) : low pressure tubes and cartridges may be used.
- Where combination packages are used, and the inner packages are of glass, there must be sufficient inert cushioning material in contact with inner and outer packages
- In addition, where inner packagings are glass and contain liquids of packing group I there must be sufficient inert absorbent to absorb any spillage, unless the outer packaging is a close fitting moulded plastic box and the substances are not incompatible with the plastic.

STORAGE INCOMPATIBILITY

- Avoid reaction with oxidising agents.

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.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Exposure Standards:

National Occupational Exposure Standard (NES) Australian Safety & Compensation Council, ASCC (formerly NOHSC)

Solvent Degreaser.

KEROSINE, (PETROLEUM), HYDRODESULFURISED:

No exposure limits set by NOHSC or ACGIH. for kerosene CAS 8008-20-6 TLV TWA: 200 mg/m3 as total hydrocarbon vapour Skin A3

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.

CAUTION: This substance has been classified by the ACGIH as A3 Animal Carcinogen (at relatively high doses).

OEL TWA: 14 ppm, 100 mg/m3 [NIOSH, 1985]

REL TWA: 150 ppm [Shell]

CEL TWA: 300 ppm, 900 mg/m3

ALCOHOLS C12-15 ETHOXYLATED:

Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat.

Historically occupational exposure standards for these irritants have been based on observation of workers' responses to various airborne concentrations. Present day expectations require that nearly every individual should be protected against even minor sensory irritation and exposure standards are established using uncertainty factors or safety factors of 5 to 10 or more. On occasion animal no observable-effect-levels (NOEL) are used to determine these limits where human results are unavailable. An additional approach, typically used by the TLV committee (USA) in determining respiratory standards for this group of chemicals, has been to assign ceiling values (TLV C) to rapidly acting irritants and to assign short-term exposure limits

(TLVSTELs) when the weight of evidence from irritation, bioaccumulation and other endpoints combine to warrant such a limit. In contrast the MAK Commission (Germany) uses a five-category system based on intensive odour, local irritation, and elimination half-life. However this system is being replaced to be consistent with the European Union (EU) Scientific Committee for Occupational Exposure Limits (SCOEL); this is more closely allied to that of the USA.

OSHA (USA) concluded that exposure to sensory irritants can:

- cause inflammation
- cause increased susceptibility to other irritants and infectious agents
- lead to permanent injury or dysfunction
- permit greater absorption of hazardous substances and
- acclimate the worker to the irritant warning properties of these substances thus increasing the risk of overexposure.

Notes:

All occupational exposures to atmospheric contaminants should be kept to as low a level as is workable (practicable) and in all cases to below the National Standard.

These Exposure Standards are guides to be used in the control of occupational health hazards.

These Exposure Standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

TWA (Time Weighted Average): the time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

STEL (Short Term Exposure Limit): the average airborne concentration over a 15 minute period that should not be exceeded at any time during a normal eight-hour work day.

Biological Limit Values:

N/A

ENGINEERING CONTROLS

♦ Ventilation:

No data available.

♦ Special Consideration for Repair &/or Maintenance of Contaminated Equipment:

No data available.

PERSONAL PROTECTION

Product Name: Solvent Degreaser

- ◆ **Personal Hygiene** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.
- ◆ **Respiratory Protection:** For conditions of use where exposure to the substance is apparent, consult an industrial hygienist. For emergencies, or instances where the exposure levels are not known, use a full-face, positive-pressure, air-supplied respirator. **WARNING:** Air purifying respirators do not protect workers in oxygen-deficient atmospheres.
- ◆ **Thermal Protection:** None should be needed under normal circumstances.
- ◆ **Smoking & Other Dusts** Smoking must be prohibited in all areas where this product is used - see safety information on flammability.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear blue liquid
Odour:	No data available.
pH, at stated concentration:	N/A
Vapour pressure:	<0.3 @ 20C
Relative Vapour Density:	Not available.
Boiling Point (°C):	150-280
Freezing/Melting Point (°C):	No data available.
Solubility:	Miscible
Specific Gravity (H₂O = 1):	0.790-0.810 @ 20°C
FLAMMABLE MATERIALS	
◆ Flash Point:	>38
◆ Flash Point Method:	No data available..
◆ Flammable (Explosive) Limit - Upper:	5.0%
◆ Flammable (Explosive) Limit – Lower:	-
◆ Auto ignition Temperature:	No data available
ADDITIONAL PROPERTIES	
◆ Evaporation Rate	No data available.
◆ Molecular Weight	No data available.
◆ Volatile Organic Compounds Content (VOC)	(as specified by the Green Building Council of Australia) Not Applicable
◆ % Volatiles	No data available.

10. STABILITY AND REACTIVITY

CONDITIONS CONTRIBUTING TO INSTABILITY

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

11. TOXICOLOGICAL INFORMATION

Effects

- Swallowed:** Accidental ingestion of the material may be damaging to the health of the individual. Swallowing of the liquid may cause aspiration into the lungs with the risk of chemical pneumonitis; serious consequences may result. (ICSC13733).
Ingestion of petroleum hydrocarbons can irritate the pharynx, oesophagus, stomach and small intestine, and cause swellings and ulcers of the mucous. Symptoms include a burning mouth and throat; larger amounts can cause nausea and vomiting, narcosis, weakness, dizziness, slow and shallow breathing, abdominal swelling, unconsciousness and convulsions. Damage to the heart muscle can produce heart beat irregularities, ventricular fibrillation (fatal) and ECG changes. The central nervous system can be depressed. Light species can cause a sharp tingling of the tongue and cause loss of sensation there. Aspiration can cause cough, gagging, pneumonia with swelling and bleeding.
- Eyes:** This material can cause eye irritation and damage in some persons.
Direct eye contact with petroleum hydrocarbons can be painful, and the corneal epithelium may be temporarily damaged. Aromatic species can cause irritation and excessive tear Secretion.

Product Name: Solvent Degreaser

- Skin:** Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.
Open cuts, abraded or irritated skin should not be exposed to this material.
Entry into the blood-stream through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected. The material may accentuate any pre-existing dermatitis condition.
- Inhaled:** Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by sleepiness, reduced alertness, loss of reflexes, lack of co-ordination, and vertigo.
Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.
- Inhalation hazard is increased at higher temperatures.
 - Inhalation of high concentrations of gas/vapour causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.
 - If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death.
- Chronic** Harmful: danger of serious damage to health by prolonged exposure through inhalation. This material can cause serious damage if one is exposed to it for long periods. It can be assumed that it contains a substance which can produce severe defects. This has been demonstrated via both short- and long-term experimentation. Based on experience with animal studies, exposure to the material may result in toxic effects to the development of the foetus, at levels which do not cause significant toxic effects to the mother.
There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment.
Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.
Chronic solvent inhalation exposures may result in nervous system impairment and liver and blood changes. [PATTYS].
Constant or exposure over long periods to mixed hydrocarbons may produce stupor with dizziness, weakness and visual disturbance, weight loss and anaemia, and reduced liver and kidney function. Skin exposure may result in drying and cracking and redness of the skin. Chronic exposure to lighter hydrocarbons can cause nerve damage, peripheral neuropathy, bone marrow dysfunction and psychiatric disorders as well as damage the liver and kidneys.

12. ECOLOGICAL INFORMATION

DO NOT discharge into sewer or waterways. Refer to data for ingredients, which follows: ALCOHOLS C12-15 ETHOXYLATED:

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.

Octanol/water partition coefficients cannot easily be determined for surfactants because one part of the molecule is hydrophilic and the other part is hydrophobic. Consequently they tend to accumulate at the interface and are not extracted into one or other of the liquid phases. As a result surfactants are expected to transfer slowly, for example, from water into the flesh of fish. During this process, readily biodegradable surfactants are expected to be metabolised rapidly during the process of bioaccumulation. This was emphasised by the OECD Expert Group stating that chemicals are not to be considered to show bioaccumulation potential if they are readily biodegradable.

Several anionic and nonionic surfactants have been investigated to evaluate their potential to bioconcentrate in fish. BCF values (BCF - bioconcentration factor) ranging from 1 to 350 were found. These are absolute maximum values, resulting from the radiolabelling technique used. In all these studies, substantial oxidative metabolism was found resulting in the highest radioactivity in the gall bladder. This indicates liver transformation of the parent compound and biliary excretion of the metabolised compounds, so that "real" bioconcentration is overstated. After correction it can be expected that "real" parent BCF values are one order of magnitude less than those indicated above, i.e. "real" BCF is <100. Therefore the usual data used for classification by EU directives to determine whether a substance is "Dangerous to the Environment" has little bearing on whether the use of the surfactant is environmentally acceptable.

Alcohol (alkyl) ethoxylates (AEs) are generally biodegradable and do not persist for any substantial period in the environment. They are not usually present a concentrations which might produce problems. Contamination of natural waters, however, should be avoided. The biodegradability of the alcohol ethoxylates (AE) is relatively unaffected by the alkyl carbon chain length and the number of EO units. The linear AE are normally easily degraded under aerobic conditions. Only small differences are seen in the time needed for ultimate degradation of linear AE with different alkyl chain lengths. AE with a typical alkyl chain (e.g., C12 to

Product Name: Solvent Degreaser

C15) will normally reach more than 60% degradation in standardized tests for "ready" biodegradability. The rate of biodegradation may however be determined by the length of the ethylene oxide (EO) chain.. Longer EO chains decrease the bioavailability of the AE (to microorganism) due to increased hydrophilicity and molecular size, which limits the transport of the molecule through the cell wall. The biodegradation of branched AE tends to be slower than biodegradation of linear AE. The biodegradability of AE depends on degree and structure of the branching. The general trend is that the biodegradation decreases considerably with an increasing branching of the carbon chain. The biodegradability of alcohol alkoxyates (AA), similarly, generally decreases with an increasing number of PO units. AA containing 6 PO units did not pass the level required for ready biodegradability whereas the same alcohol containing 2 PO units attained 83% ThOD in the closed bottle test. The mineralization observed in experiments with ¹⁴C-labelled surfactants suggests that almost complete degradation of linear AE may be expected in anaerobic digesters. Algae constitute the group of aquatic organisms which appears to be the most sensitive to AE. The acute toxicity of linear and branched AE to algae is in the same range with EC50 values from 0.05 to 50 mg/l. For the linear AE, the toxicity increases with increasing hydrophobe chain length of C13) and decreasing EO chain length. The toxicity of AE to algae tends to decrease with increasing degree of branching.

The acute toxicity of AE to invertebrates varies with EC50 values from 0.1 mg/l to more than 100 mg/l for the linear types and from 0.5 mg/l to 50 mg/l for the branched types. The toxicity is species specific and may vary between 0.29 mg/l to 270 mg/l for the same linear AE. The most commonly used invertebrates for testing are *Daphnia magna* and *Daphnia pulex*, and they are also among the most sensitive invertebrates to AE. Apparently, the toxicity of AE to invertebrates was not related to hydrophobicity as it is the case for algae. Some AE are very toxic to invertebrates, i.e., linear AE of C12-15EO1- 8 and branched AE with a low degree of branching, i.e. < 10-25%. Branching of the alkyl chain reduces the toxicity of AE to invertebrates as also observed for algae.

The acute toxicity of AE to fish varies with LC50 values from 0.4 mg/l to more than 100 mg/l for the linear types and from 0.25 mg/l to 40 mg/l for the branched AE. For linear AE the toxicity increases with decreasing EO units . AE containing 7-11 EO groups are considered to be very toxic to fish (EC/LC50 &#pound; 1 mg/l).

Of special interest are the aryl alcohol ethoxylates. not readily biodegradable but are inherently biodegradable.

As a group, these materials are generally toxic to fish with LC50s ranging, typically, between 1-6 mg/l.

Of special concern are the following families which are classified as "Environmentally Hazardous Substances" (Dangerous Goods Class 9) by either or both the ADR (Accord Europeen Relatif au Transport International des Merchandises Dangerous par Route) and the IMDG Code (International Maritime Dangerous Goods Code).

alcohols C 6-17 (secondary) with 3-6 moles of ethoxylation.

alcohols C12-15 with 1-3 moles of ethoxylation (1-6 moles of ethoxylation IMDG)

alcohols C13-15 with 1-6 moles of ethoxylation. New aquatic data suggests that

alcohols C 8-9 branched with 3-10 moles of ethoxylation

alcohols C 8-9 branched with > 10 moles of ethoxylation should also be classified as 'harmful to the environment'

These alcohols may also be found linked to aromatic structures (in nonylphenol ethoxylates for example). The current consensus determines that such entities become Environmental Toxins by association.

DO NOT discharge into sewer or waterways.

Fish LC50: <1 mg/l (Huntsman MSDS).

13. DISPOSAL CONSIDERATIONS

Legislation addressing waste disposal requirements may differ by country, state and/ or

territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction,
- Reuse
- Recycling
- Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

- DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.

Product Name: Solvent Degreaser

- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: Burial in a licenced land-fill or Incineration in a licenced apparatus (after admixture with suitable combustible material).
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

14. TRANSPORT INFORMATION

Proper Shipping Name:	Kerosene (Degreaser)
UN number:	1223
DG Class:	3 Flammable liquid
Subsidiary Risk 1:	Not available.
Packaging Group:	III
HAZCHEM code:	3Y

15. REGULATORY INFORMATION

Poisons Schedule: S5

16. OTHER INFORMATION

Additional Information.

Australian Standards References:

AS 1020	The Control of undesirable static electricity.
AS 1076	Code of Practice for selection, installation and maintenance of electrical apparatus and associated equipment for use in explosive atmospheres (other than mining applications) – Parts 1 to 13.
AS/NZS 1336	Recommended Practices for Occupational Eye Protection
AS/NZS 1715	Selection, Use and Maintenance of Respiratory Protective Devices
AS/NZS 1716	Respiratory Protective Devices
AS 1940	The Storage and Handling of Flammable and Combustible Liquids.
AS 2161	Industrial Safety Gloves and Mittens (excluding electrical and medical gloves)
AS 2380	Electrical equipment for explosive atmospheres – Explosion Protection Techniques (Parts 1 to 9).
AS 3000	Electrical installations (known as the Australian/New Zealand Wiring Rules).

Other References:

NOHSC:2011(2003)	National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition, April 2003, National Occupational Health and Safety Commission.
NOHSC; 2012 (1994)	National Code of Practice for the Labeling of Workplace Substances, March 1994, Australian Government Publishing Service, Canberra.
NES	National Occupational Exposure Standards for workplace Atmospheric Contaminants (NES) Australian Safety and Compensation Council, ASCC (Formerly NOHSC) 1995 as amended.
ADG Code 6th Edition	Australian Dangerous Goods Code 6th Edition

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to

Product Name: Solvent Degreaser

prepare a MSDS which would encompass all possible scenarios, it is anticipated that the end user will assess the risks and apply control methods where appropriate.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this MSDS is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered by the end user before final selection of personal protective equipment is made.

REPORT STATUS:

This MSDS has been prepared by Tru-Blu Oil using the most current information available at the time of issuing. Tru-Blu Oil accepts no liability (as lawfully allowed) for any loss, injury or damage which may have been suffered or incurred by any person as a consequence of their reliance on information that is contained in this MSDS.

MSDS Date: 15th June 2015

End of MSDS