Safety Data Sheet

Section 1 - Identification of Chemical Product and Company

TQ Products Pty Ltd
15 Weedon Road
Forrestdale
WA 6112
ACN 149-668-342

24hr Emergency Phone: **13 1126**
Australia Emergency Services: **000**

Phone: business hours **1 300 075 678**

Substance:

Trade Name: **Solid Wax**
Product Use: **Industrial use only**
Creation Date: **July 2021**
Revision Date: **July 2021** and valid for five years

Section 2 - Hazards Identification

Statement of Hazardous Nature

This product is classified as: HAZARDOUS CHEMICAL; DANGEROUS GOOD according to the WHS Regulations and ADG Code.

Poison Schedule Not applicable

Signal Word: **DANGER**

Hazard Classification:

Flammable Liquid	Category 4
Skin Effects	Category 2
Eye Effects	Category 2
Carcinogenicity	Category 1
STOT – SE	Category 2
STOT – RE	Category 2
STOT – SE NE	Category 3
Chronic Aquatic Hazard	Category 2

Hazard Statements:

H227	Combustible liquid
H315	Causes skin irritation
H319	Causes serious eye irritation
H350	May cause cancer
H371	May cause damage to organs
H373	May cause damage to organs through prolonged or repeated exposure
H336	May cause drowsiness or dizziness
H411	Toxic to aquatic life with long lasting effects

Precautionary Statement: Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P260	Do not breathe mist/ vapour/ spray
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves/ protective clothing/ eye protection and face protection
P264	Wash all exposed external body parts thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P273	Avoid release to the environment

Precautionary Statement: Response

P301+P3330+P331	IF SWALLOWED: Rinse mouth, Do NOT induce vomiting
P302+P361+P3523	IF ON SKIN: Take off immediately all contaminated clothing. Wash with plenty of soap and water
P363	Wash contaminated clothing before reuse
P333+P313	IF skin irritation or rash occurs: Get medical advice
P035+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313	If eye irritation persists: Get medical advice/ attention
P304+P340	IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing
P310	Immediately call a POISON CENTRE/ Doctor/ physician/ first aider
P370+P378	In case of fire: Use alcohol resistant foam or fine spray/ water fog to extinguish
P391	Collect spillage

Precautionary Statement: Storage

P405	Store locked up
P403+P233	Store in a well-ventilated place. Keep container tightly closed

Precautionary Statement: Disposal

P501	Dispose of contents/ container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal

Section 3 - Composition/Information on Ingredients

Substances	**CAS No**	**Conc.%**
Tetrachloroethylene	127-18-4	> 50 %
Paraffin waxes and hydrocarbon waxes	8002-74-2	12.5 – 25 %

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other nonhazardous ingredients are also possible.

Mixtures

See above for composition of substance

Section 4 - First Aid Measures

General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 131126 from anywhere in Australia and is available at all times. Have this SDS or product label with you when you call.

Eye Contact:

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. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin Contact:

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.

Inhalation:

Remove from contaminated area. Other measures are usually unnecessary.

Ingestion:

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. If poisoning occurs, contact a doctor or Poisons Information Centre. Avoid giving milk or oils. Avoid giving alcohol.

Note to Physician:

Treat symptomatically.
As in all cases of suspected poisoning, follow the ABCDEs of emergency medicine (airway, breathing, circulation, disability, exposure), then the ABCDEs of toxicology (antidotes, basics, change absorption, change distribution, change elimination).

Section 5 - Fire Fighting Measures

Extinguishing Media:

Foam. Dry chemical powder. Carbon dioxide. Water spray or fog - Large fires only.

Fire Incompatibility:

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result

Fire Fighting:

Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Use fire fighting procedures suitable for surrounding area. 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. Equipment should be thoroughly decontaminated after use.

Fire and Explosion Hazards:

Combustible liquid. However, vapour will burn when in contact with high temperature flame. Ignition ceases on removal of flame. May form a flammable / explosive mixture in an oxygen enriched atmosphere Heating may cause expansion/vapourisation with violent rupture of containers Decomposes on heating and produces corrosive fumes of hydrochloric acid, carbon monoxide and small amounts of toxic phosgene.

Fire Decomposition:

Carbon dioxide (CO_2) Carbon dioxide (CO_2), Hydrogen chloride (HCl), Phosgene ($COCl_2$) and other pyrolysis products typical of burning organic material. May emit poisonous fumes. May emit corrosive fumes.

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Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Refer Section 8

Environmental precautions

Refer Section 12

Minor Spills:

Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Place in a suitable, labelled container for waste disposal.

Major Spills:

Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by all means available, spillage from entering drains or water courses. 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 or absorb spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains. After clean-up operations, decontaminate and launder all protective clothing and equipment before storing and re-using. If contamination of drains or waterways occurs, advise emergency services.

Section 7 - Handling and Storage

Handling:

Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately. Check for bulging containers. Vent periodically Always release caps or seals slowly to ensure slow dissipation of vapours DO NOT allow clothing wet with material to stay in contact with skin

Storage:

Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS.

Suitable container:

DO NOT use aluminium or galvanised containers Heavy gauge metal packages/ heavy gauge metal drums. Lined metal can, lined metal pail/ can. Plastic pail. Polyliner drum. Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.

Section 8 - Exposure Controls and Personal Protection

	Australia	
Exposure limits	**TWA (mg/m^3)**	**STEL (mg/m^3)**
Tetrachloroethylene	340	1020
Paraffin waxes & hydrocarbon waxes	2	

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5-day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak "is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Engineering Controls:

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically
"adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.
Employers may need to use multiple types of controls to prevent employee overexposure. For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant. 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.

Eye Protection:

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 lenses 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], [AS/NZS 1336 or national equivalent]

Skin Protection:

Wear chemical protective gloves, e.g. CPE or PE/EVAL/PE or PVA or Viton or Viton/Chlorobutyl or Viton/Nitrile. Wear safety footwear or safety gumboots, e.g. Rubber When handling hazardous substances, wear trousers or overalls outside of boots, to avoid spills entering boots. Overalls. P.V.C. apron.

Respirator:

Not normally required. If WES is likely to be exceeded, then a Type A filter of sufficient capacity is recommended

Section 9 - Physical and Chemical Properties:

Physical Description & colour:	Transparent paste
Odour:	Characteristic
Odour threshold:	no data
pH:	no data
Melting Point:	no data
Boiling Point:	121 °C
Flash point:	> 63 °C
Flammability:	no data
Evaporation Rate:	> 1 butyl acetate = 1
Lower Explosion Limit:	not applicable
Upper Explosion Limit:	not applicable
Vapour Pressure:	2.2 kPa
Relative Vapour Density:	> 1
Specific Gravity:	1.4 g/cm^3
Water Solubility:	immiscible
Coeff Octanol/water distribution	no data
Auto ignition temp:	>300 °C
Decomposition temp:	material is stable under normal conditions
SADT:	no data available
Dynamic viscosity:	no data
Kinematic viscosity:	no data
Volatiles:	82%

Section 10 - Stability and Reactivity

Reactivity:

Product is considered stable under normal conditions

Chemical stability:

Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.

Conditions to Avoid:

Refer Section 7

Incompatibilities:

Refer Section 7

Polymerisation:

This product will not undergo polymerisation reactions.

Hazardous Decomposition Products

Refer Section 5

Section 11 - Toxicological Information

Inhaled:

The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. 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 hazard is increased at higher temperatures. Exposure to high levels of tetrachloroethylene by oral or inhalation may cause dose dependent light-headedness, mood and behavioural changes, seizure, unconsciousness, abnormal bilirubin level, liver and kidney damage in workers. Sudden death may result from anaesthetic doses probably due to depression of the respiratory centre or heart dysfunction. Human studies showed dose dependent neurologic symptoms. It may cause irritation of the eyes, airways and skin.

Ingestion:

Accidental ingestion of the material may be damaging to the health of the individual.

Skin Contact:

The material may accentuate any pre-existing dermatitis condition Skin contact with the material may damage the health of the individual; systemic effects may result following absorption. The liquid may be able to be mixed with fats or oils and may degrease the skin, producing a skin reaction described as non-allergic contact dermatitis. The material is unlikely to produce an irritant dermatitis as described in EC Directives. 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. Industrial experience shows that exposure to tetrachloroethylene produces localised skin irritation while prolonged skin contact can cause chemical burns and blistering. Absorption by skin may readily exceed vapour inhalation exposure. Symptoms for skin absorption are the same as for inhalation.

Eye Contact:

Irritation of the eyes may produce a heavy secretion of tears (lachrymation). Exposure to high concentrations of tetrachloroethylene vapour causes mild to severe eye irritation, burning or stinging sensations depending on the dose and duration of exposure. Colour vision has equally being reported which is attributed to neurological rather than a direct effect on the eyes. Limited evidence or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals. Prolonged eye contact may cause inflammation characterised by a temporary redness of the conjunctiva (similar to windburn).

Chronic Health Effects:

Repeated or long-term occupational exposure is likely to produce cumulative health effects involving organs or biochemical systems. There is sufficient evidence to suggest that this material directly causes cancer in humans.

Toxicity *refer ingredients*

	Oral		Dermal		Inhalation	
Product	LD_{50}	>2545 mg/Kg	LD_{50}	>1212 mg/Kg		
Tetrachloroethylene	LD_{50}	250 mg/Kg	LD_{50}	>10000 mg/Kg	LC_{50}	35 mg/L 4h
Paraffin waxes	LD_{50}	>5000 mg/Kg	LD_{50}	>2000 mg/Kg		

Section 12 - Ecological Information

Toxicity *refer ingredients*

	Fish	Crustacea	Algae
Product			
Tetrachloroethylene	$LC_{50\ 96hr}$ >3 mg/L	$EC_{50\ 48hr}$ 22 mg/L	$EC_{50\ 72hr}$ 3.1 mg/L

Toxic to aquatic life with long lasting effects. 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.

	Persistence Water/Soil	Persistence Air	Bioaccumulation	Mobility
Tetrachloroethylene	HIGH	MEDIUM	LOW	LOW

Section 13 - Disposal Considerations

Disposal:

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. 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 landfill specifically licensed to accept chemical and / or pharmaceutical wastes or incineration in a licensed apparatus (after admixture with suitable combustible material). Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

Section 14 - Transport Information

Labels Required

MARINE POLLUTANT **YES**

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Land Transport ADG

UN Number	**1897**
UN Proper Shipping Name	**TETRACHLOROETHYLENE**
Class	**6.1**
Subrisk	not applicable
Packing Group	**III**
Environmental Hazard	**Environmentally hazardous**
Special Provisions	not applicable
Limited Quantity	**5L**

Air Transport ICAO-IATA/ DGR

UN Number	**1897**
UN Proper Shipping Name	**TETRACHLOROETHYLENE**
ICAO/ IATA Class	**6.1**
ICAO/ IATA Subrisk	not applicable
ERG Code	**6L**
Packing Group	**III**
Environmental Hazard	**Environmentally hazardous**
Special Provisions	Not applicable
Cargo Only Packing Instructions	**663**
Cargo only Max Qty/ Pack	**220 L**
Passenger/ Cargo Packing Instruction	**655**
Passenger/ Cargo Max Qty/ Pack	**60 L**
Passenger/ Cargo LQ Packing Instruction	**Y642**
Passenger/ Cargo LQ Qty/ Pack	**2 L**

Marine Transport IMDG Code /GGVSee

UN Number	**1897**
UN Proper Shipping Name	**TETRACHLOROETHYLENE**
IMDG Class	**6.1**
IMDG Subrisk	not applicable
Packing Group	**III**
Environmental Hazard	**Environmentally hazardous**
EMS Number	**F-A S-A**
Special Provisions	Not applicable
Limited Quantities	**5 L**

Section 15 - Regulatory Information

Safety, health and environmental regulations/ legislation specific for the substance or mixture

International Regulations

Montreal Protocol	Not applicable
Stockholm Convention	Not applicable
Rotterdam Convention	Not applicable
Kyoto Protocol	Not applicable

Inventory Status

Australia	AICS	Yes
Canada	DSL	Yes
	NDSL	No
China	IECS	Yes
EU	EINECS	Yes
Japan	ENCS	Yes
Korea	KECI	Yes
New Zealand	NZIOC	Yes

Philippines	PICCS	Yes
Taiwan	CSNN	Yes
US	TSCA	Yes
Taiwan	TCSI	Yes
Mexico	INSQ	Yes
Vietnam	NCI	Yes
Russia	FBEPH	Yes

Section 16 - Other Information

Revision History

July 2021 origination

This SDS contains only safety-related information. For other data see product literature.

Please read all labels carefully before using product.

Acronyms:

CAS number	Chemical Abstracts Service Registry Number
Hazchem Code	Emergency action code of numbers and letters that provide information to emergency services especially fire-fighters.
IARC	International Agency for Research on Cancer
NOS	Not otherwise specified.
UN Number	United Nations Number

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material in combination with any other material or in any process, unless specified in the text.

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End of SDS