1. IDENTIFICATION

Product Name: Bees Wax
Other names: C46-H92-O2; beeswax yellow, natural bees wax
Uses: Component of floor and furniture waxes, shoe polish, candles. Component of emulsified liquid floor polish. In solution as spirit wax. Refined grades used in cosmetics, creams, lipsticks.
Chemical Family: No data available
Chemical Name: Bees Wax
Product Description: No Data Available
Contact Information:

Organisation	Location	Telephone	Ask For
Adelaide Moulding and Candle Supplies	7 Woodlands Terrace Edwardstown South Australia 5039	08 8294 0451	SDS Officer
Poisons Information Centre		13 11 26	

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust): Not Scheduled

Hazard Classification: Not Applicable

Signal word: Not Applicable

Precautionary statement(s) Prevention: Not Applicable

Precautionary statement(s) Response: Not Applicable

Precautionary statement(s) Storage: Not Applicable

Precautionary statement(s) Disposal: Not Applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients:

Chemical Entity	Formula	CAS Number	Proportion
Bees Wax	No Data Available	8012-89-3	-
Consists of	No Data Available	Not Available	-
Myricyl palmitate	No Data Available	6027-71-0	>60
Cerotic acid and esters and high MW paraffin hydrocarbons	No Data Available	Not Available	-

*1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; * EU IOELVs available*

4. FIRST AID MEASURES

Eye Contact: Wash out immediately with water. If irritation continues, seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin Contact: If skin or hair contact occurs: Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation. In case of burns: Immediately apply cold water to burn either by immersion or wrapping with saturated clean cloth. DO NOT remove or cut away clothing over burnt areas. DO NOT pull away clothing which has adhered to the skin as this can cause further injury. DO NOT break blister or remove solidified material.

Quickly cover wound with dressing or clean cloth to help prevent infection and to ease pain. For large burns, sheets, towels, or pillow slips are ideal; leave holes for eyes, nose, and mouth. DO NOT apply ointments, oils, butter, etc. to a burn under any circumstances. Water may be given in small quantities if the person is conscious.
Alcohol is not to be given under any circumstances. Reassure. Treat for shock by keeping the person warm and in a lying position. Seek medical aid and advise medical personnel in advance of the cause and extent of the injury and the estimated time of arrival of the patient.

Inhalation: If fumes, aerosols, or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.

Ingestion: If fumes, aerosols, or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.

Advice to Doctor: Treat symptomatically.

Medical Conditions Aggravated by Exposure: No information available on medical conditions aggravated by exposure to this product. Hot wax can cause serous thermal burns to exposed tissue. Administer first aid procedures and seek emergency medical treatment immediately.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Foam, Dry chemical powder, BCF (where regulations permit), Carbon dioxide.

Special hazards arising from the substrate or mixture: Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

Special Fire Fighting Instructions: Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water courses. Use water delivered as a fine spray to control fire and cool adjacent area.

Fire/Explosion Hazard: Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) - according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions. Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions). Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will generally not form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion.
Combustion products include: carbon monoxide (CO) carbon dioxide (CO2) other pyrolysis products typical of burning organic material. **NOTE:** Burns with intense heat. Produces melting, flowing, burning liquid and dense acrid black smoke.

Hazchem Code: Not Applicable

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: See section 8

Environmental precautions: See section 12

Methods and material for containment and cleaning up

Minor Spills: Clean up all spills immediately. Avoid contact with skin and eyes. Wear impervious gloves and safety glasses. Use dry clean up procedures and avoid generating dust.

Major Spills: Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Control personal contact with the substance, by using protective equipment and dust respirator. Prevent spillage from entering drains, sewers or water courses.

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

7. HANDLING AND STORAGE

Precautions for safe handling Handling: Limit all unnecessary personal contact. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Avoid contact with incompatible materials. Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions) Minimise airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame. Establish good housekeeping practices. Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds.

Other information: Store in original containers. Keep containers securely sealed. Store in a cool, dry area protected from environmental extremes. Store away from incompatible materials and foodstuff containers.

Conditions for safe storage, including any incompatibilities

Suitable container: Lined metal can, lined metal pail/ can. Plastic pail. Polyliner drum. Packing as recommended by manufacturer.

Storage incompatibility: Avoid contamination of water, foodstuffs, feed, or seed. Avoid reaction with oxidising agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: Occupational Exposure Limits (OEL)

Ingredient data: Not Available

Emergency Limits

Ingredient	TEEL-1	TEEL-2	TEEL-3
BEESWAX	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
Beeswax	Not Available	Not Available
Myricyl palmitate	Not Available	Not Available

Exposure control

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.

Personal protection:

Eye and face 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.

Skin protection: See Hand protection below.

Hands/feet protection: The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care. Polyethylene gloves Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present: polychloroprene, nitrile rubber, and butyl rubber.

Body protection: See Other protection below.

Other protection: No special equipment needed when handling small quantities. Otherwise: Overalls, barrier cream, eyewash unit.

Respiratory protection: Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	P1 Air-line*	- -	PAPR-P1 -
up to 50 x ES	Air-line**	**P2**	PAPR-P2
up to 100 x ES	-	**P3**	-
		Air-line*	-
100+ x ES	-	Air-line**	PAPR-P3

** - Negative pressure demand ** - Continuous flow.*

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

· Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.

· The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).

· Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.

· Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.

· Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)

· Use approved positive flow mask if significant quantities of dust becomes airborne.

· Try to avoid creating dust conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Brown solid; floats on water. Mild, characteristic odour. Available as Crude (brown), Technical (pale yellow), Refined and bleached (white) grades. Also available as USP and BP grades.
Physical State:	Divided Solid
Odour:	Not Available
Other threshold:	Not Available
Colour:	No Data Available
pH:	No Data Available
Boiling Point:	No Data Available
Melting Point:	62°C - 65°C
Flash point (°C):	204.4 °C
Evaporation Rate:	Not Applicable
Flammability:	Combustible
Upper Explosive Limit (%)	Not Available
Lower Explosive Limit (%)	Not Available
Vapour pressure (kPa)	Negligible
Solubility in water	Insoluble
Vapour density (Air = 1)	> 1.0
Relative density (Water =1)	0.95
Partition coefficient n-octanol / water	Not Available
Auto-ignition temperature (°C)	Not Available
Decomposition temperature	Not Available
Viscosity (cSt)	Not Applicable
Molecular weight (g/mol)	677.232 ~
Taste	Not Available
Explosive properties	Not Available
Oxidising properties	Not Available
Surface Tension (dyn/cm or mN/m)	Not Applicable
Volatile Component (%vol)	< 1.0
Gas group	Not Available
pH as a solution (%)	Not Applicable
VOC g/L	Not Available

10. STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical Stability:	Product is considered stable and hazardous polymerisation will not occur.
Possibility of hazardous reactions:	See section 7
Conditions to avoid:	See section 7
Incompatible materials:	See section 7
Hazardous decomposition products:	See section 5

11. TOXICOLOGICAL INFORMATION

Inhaled: The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of

particulate are inhaled. If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures. Inhalation hazard is increased at higher temperatures. Not normally a hazard due to non-volatile nature of product

Ingestions: The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. Fatty acid esters have fairly low toxicity. First aid treatment for ingestion may not be necessary.

Skin Contact: The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

Eye: Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may cause transient discomfort characterised by tearing or conjunctival redness (as with windburn). Slight abrasive damage may also result.

Chronic: Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless, exposure by all routes should be minimised as a matter of course. Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis, caused by particles less than 0.5 micron penetrating and remaining in the lung.

Beeswax: Toxicity: Not Available
Irritation: Not Available

Myricyl palmitate: Toxicity: Not Available
Irritation: Not Available

1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS.
Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

MYRICYL PALMITATE: Fatty acid esters have fairly low toxicity.

BEESWAX & MYRICYL PALMITATE No significant acute toxicological data identified in literature search.
Group A aliphatic monoesters (fatty acid esters) cause very little or no injury and are considered safe for use in cosmetics.

Acute Toxicity	X	Carcinogenicity	X
Skin Irritation / Corrosion	X	Reproductivity	X
Serious Eye Damage/ Irritation	X	STOT - Single Exposure	X
Respiratory or Skin sensitisation	X	STOT - Repeated Exposure	X
Mutagenicity	X	Aspiration Hazard	X

Legend: ***X*** *Data either not available or does not fill the criteria for classification*
✔ *Data available to make classification*

12. ECOLOGICAL INFORMATION

Beeswax	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	Not Available	Not Available	Not Available	Not Available	Not Available
Myricyl palmitate	**Endpoint**	**Test Duration (hr)**	**Species**	**Value**	**Source**
	Not Available	Not Available	Not Available	Not Available	Not Available

Legend: *Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*

For Group A aliphatic esters (fatty acid esters): Environmental Fate: Due to their chemical composition, Group A substances are lipophilic and have a relatively high boiling point. They are non-volatile substances with low vapor pressures. Hydrolysis rates are also low and not considered a significant environmental fate. Fatty acid esters show a similar distribution across all environmental components (air, water, soil, sediment).

Persistence and degradability: Persistence: Water/Soil: No Data available for all ingredients
Persistence: Air: No Data available for all ingredients

Bioaccumulative potential: No Data available for all ingredients

Mobility in soil: Mobility in soil

13. DISPOSAL CONSIDERATIONS

Product / Packaging 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. 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 land-fill 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.

14. TRANSPORT INFORMATION

Marine Pollutant:	NO
HAZCHEM:	Not Applicable
Land Transport (ADG):	Not regulated for transport of dangerous goods
Air transport (ICAO-IATA/DGR):	Not regulated for transport of dangerous goods
Sea transport (IMDG -Code/GGCSee):	Not regulated for transport of dangerous goods
Transport in bulk according to Annex II of MARPOL and the IBC code:	Not Applicable
Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code:	Beeswax: Not Available myricyl palmitate: Not Available
Transport in bulk in accordance with the ICG Code:	Beeswax: Not Available myricyl palmitate: Not Available

15. REGULATORY INFORMATION

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

Beeswax is found on the following regulatory lists:	Australian Inventory of Industrial Chemicals (AIIC)
myricyl palmitate is found on the following regulatory lists:	Not Applicable

National Inventory Status

Australia - AIIC / Australia Non-Industrial Use:	No (myricyl palmitate)
Canada – DS:	No (myricyl palmitate)
Canada – NDSL:	No (beeswax; myricyl palmitate)
China – IECSC:	No (myricyl palmitate)
Europe - EINEC / ELINCS /NLP:	Yes
Japan – ENCS:	No (beeswax; myricyl palmitate)
Korea – KECI:	No (myricyl palmitate)
New Zealand -NZIoC:	No (myricyl palmitate)
Philippines – PICCS:	No (myricyl palmitate)
USA – TSCA:	No (myricyl palmitate)
Taiwan – TCSI:	No (myricyl palmitate)
Mexico – INSQ:	No (beeswax; myricyl palmitate)
Vietnam – NCI:	No (myricyl palmitate)
Russia – FBEPH:	No (myricyl palmitate)

Legend: Yes = All CAS declared ingredients are on the inventory
No = One or more of the CAS listed ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

16. OTHER INFORMATION

Revision Date:	27/06/2017
Initial Date:	07/11/2006

Definitions and abbreviations
PC—TWA: Permissible Concentration-Time Weighted Average
PC—STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit。
IDLH: Immediately Dangerous to Life or Health Concentrations
ES: Exposure Standard
OSF: Odour Safety Factor
NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index
AIIC: Australian Inventory of Industrial Chemicals
DSL: Domestic Substances List
NDSL: Non-Domestic Substances List
IECSC: Inventory of Existing Chemical Substance in China
EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European List of Notified Chemical Substances
NLP: No-Longer Polymers
ENCS: Existing and New Chemical Substances Inventory
KECI: Korea Existing Chemicals Inventory
NZIoC: New Zealand Inventory of Chemicals
PICCS: Philippine Inventory of Chemicals and Chemical Substances
TSCA: Toxic Substances Control Act
TCSI: Taiwan Chemical Substance Inventory
INSQ: Inventario Nacional de Sustancias Químicas
NCI: National Chemical Inventory
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

This information presented here is believed to be accurate and pertains only to the product when stored in a sealed condition, as prescribed above, the information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure what information is appropriate and complete for his special use of this product. Manufacturer shall in no way be liable for any claims, losses, and damages of any third party, or for lost profits, or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, from the use of this product.