

WSD Keyvit 400

WSD Agribusiness Pty Ltd

Chemwatch: 33-4501 Version No: 3.1.1.1 Safety Data Sheet according to WHS and ADG requirements

Chemwatch Hazard Alert Code: 2

Issue Date: 01/01/2013 Print Date: 26/02/2016 Initial Date: Not Available L.GHS.AUS.EN

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	WSD Keyvit 400
Synonyms	Not Available
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

A concentrate of vitamin E for livestock.

Details of the supplier of the safety data sheet

Registered company name	WSD Agribusiness Pty Ltd
Address	7 Koojan Avenue South Guildford 6055 WA Australia
Telephone	+61 8 9321 2888
Fax	+61 8 9479 4088
Website	Not Available
Email	contact@wsdagribusiness.com

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	Not Available
Other emergency telephone numbers	Not Available

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

CHEMWATCH HAZARD RATINGS

Max

Min

Toxicity 0 Body Contact 2 Body Contact 2 Stepse 1 Chronic 0 Poisons Schedule Not Applicable Chronic 0 Poisons Schedule Not Applicable Classification [1] Skin Corrosion/Irritation Category 2, Eye Irritation Category 3, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation), Chronic Aquatic Hazard Category 3 Legend: 1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex // Label elements	Flammability 1			
Body Contact 2 1 = Low Reactivity 1 2 = Moderate 3 = High 3 = High Chronic 0 4 = Extreme Poisons Schedule Not Applicable Classification [1] Skin Corrosion/Irritation Category 2, Eye Irritation Category 3 (respiratory tract irritation), Chronic Aquatic Hazard Category 3 Legend: 1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex V Label elements GHS tabel elements SIGNAL WORD WARNING Hats Causes skin irritation Causes serious eye irritation Hats Causes serious eye irritation Hats May cause respiratory irritation Hats Hats Hats Hats Hats Hats Hats Hats	Toxicity 0	0 = Minimum		
Reactivity 1 2 = Moderate 3 = High 4 = Extreme Poisons Schedule Not Applicable Classification ^[1] Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation), Chronic Aquatic Hazard Category 3 Legend: 1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI Label elements Image: Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI Habel elements Image: Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI Habel elements Image: Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI Habel elements Image: Classification drawn from HSIS; 3. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI Habel elements Image: Classification drawn from HSIS; 3. Classificati	Body Contact 2	1 = Low		
Chronic 0 : 4 = Ediference Poisons Schedule Not Applicable Classification [1] Skin Corrosion/Irritation Category 2, Eye Irritation Category 3, (respiratory tract irritation), Chronic Aquatic Hazard Category 3 Legend: 1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI Label elements	Reactivity 1	z = moderate 3 = High		
Poisons Schedule Not Applicable Classification [1] Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Specific target organ toxicity - single exposure Category 3 Legend: 1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex Label elements Image: Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex Kabel elements Image: Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex Kabel elements Image: Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex Kabel elements Image: Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex Kabel elements Image: Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex Kabel elements Image: Classified by Chemwatch; 2. Classifi	Chronic 0	4 = Extreme		
Classification [1] Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Specific target organ toxicity - single exposure Category 3	Poisons Schedule	Not Applicable		
Legend: 1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI Label elements GHS label elements SIGNAL WORD WARNING Hazard statement(s) U H315 Causes skin irritation H319 Causes serious eye irritation H335 May cause respiratory irritation H412 Harmful to aquatic life with long lasting effects	Classification ^[1]	Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation), Chronic Aquatic Hazard Category 3		
Label elements GHS label elements SIGNAL WORD WARNING Hazard statement(s) H315 Causes skin irritation H319 Causes serious eye irritation H335 May cause respiratory irritation H412 Harmful to aquatic life with long lasting effects	Legend:	1. Classified by Chemwatch; 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI		
GHS label elements Image: Constant of the second secon	Label elements			
SIGNAL WORD WARNING Hazard statement(s)	GHS label elements			
Hazard statement(s) Hazard statement(s) Causes skin irritation H319 Causes serious eye irritation H335 May cause respiratory irritation H412 Harmful to aquatic life with long lasting effects	SIGNAL WORD	WARNING		
H315 Causes skin irritation H319 Causes serious eye irritation H335 May cause respiratory irritation H412 Harmful to aquatic life with long lasting effects	Hazard statement(s)			
H319 Causes serious eye irritation H335 May cause respiratory irritation H412 Harmful to aquatic life with long lasting effects	H315	Causes skin irritation		
H335 May cause respiratory irritation H412 Harmful to aquatic life with long lasting effects Precautionary statement(s) Prevention	H319	Causes serious eye irritation		
H412 Harmful to aquatic life with long lasting effects Precautionary statement(s) Prevention	H335	May cause respiratory irritation		
Precautionary statement(s) Prevention	H412	Harmful to aquatic life with long lasting effects		
	Precautionary statem	ent(s) Prevention		
P271 Use only outdoors or in a well-ventilated area.	P271	Use only outdoors or in a well-ventilated area.		
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.	P261	Avoid breathing dust/fume/gas/mist/vapours/spray.		
P273 Avoid release to the environment.	P273	Avoid release to the environment.		
P280 Wear protective gloves/protective clothing/eye protection/face protection.	P280	Wear protective gloves/protective clothing/eye protection/face protection.		

Precautionary statement(s) Response

P362	Take off contaminated clothing and wash before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P332+P313	If skin irritation occurs: Get medical advice/attention.

Precautionary statement(s) Storage

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

Precautionary statement(s) Disposal

P501 Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

Chemwatch: 33-4501		Page 3 of 10	Issue Date: 01/01/2013
Version No: 3.1.1.1		WSD Keyvit 400	Print Date: 26/02/2016
CAS No	%[weight]	Name	

DL-alpha-tocopherol acetate

SECTION 4 FIRST AID MEASURES

30-60

7695-91-2

Description of first aid measures

Eye Contact	 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. 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	 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.
Inhalation	 If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.
Ingestion	 Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog Large fires only.

Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result			
Advice for firefighters				
Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control 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	 Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). May emit acrid smoke. Mists containing combustible materials may be explosive. Combustion products include; carbon dioxide (CO2) acrolein, other pyrolysis products typical of burning organic materialMay emit poisonous fumes. CARE: Water in contact with hot liquid may cause foaming and a steam explosion with wide scattering of hot oil and possible severe burns. Foaming may cause overflow of containers and may result in possible fire.May emit corrosive fumes. 			

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

	Slippery when spilt.
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.
	Slippery when spilt.
	Moderate hazard.
	 Clear area of personnel and move upwind.
	 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 course.
	No smoking, naked lights or ignition sources.
Major Spills	► Increase ventilation.
	▶ Stop leak if safe to do so.
	► Contain spill with sand, earth or vermiculite.
	 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.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

	-
Safe handling	 DO NOT allow clothing wet with material to stay in contact with skin Rags wet / soaked with unsaturated hydrocarbons / drying oils may auto-oxidise; generate heat and, in-time, smoulder and ignite. This is especially the case where oil-soaked materials are folded, bunched, compressed, or piled together - this allows the heat to accumulate or even accelerate the reaction Oily cleaning rags should be collected regularly and immersed in water, or spread to dry in safe-place away from direct sunlight or stored, immersed, in solvents in suitably closed containers. 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 or ignition sources. 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 storage and handling recommendations contained within this SDS. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.
Other information	 Store in original containers. Keep containers securely sealed. No smoking, naked lights or ignition sources. 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. Keep cool. Store below 25 deg.C

Conditions for safe storage, including any incompatibilities

Suitable container	 Metal can or drum Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.
	Materials soaked with plant/ vegetable derived (and rarely, animal) oils may undergo spontaneous combustion
	Many vegetable and animal oils absorb oxygen from the air to form oxidation products. This oxidation process produces
	heat and the resultant increase in temperature accelerates the oxidation process.
Storage	Drying oils such as linseed, tung, poppy and sunflower oils and semi-drying oils such as soya bean, tall oil, corn, cotton
incompatibility	and castor oils all absorb oxygen readily and thus experience the self-heating process.
	Cotton fibres are readily ignited and if contaminated with an oxidisable oil, may ignite unless heat can be dissipated
	Avoid strong acids, bases.
	Avoid reaction with oxidising agents

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
WSD Keyvit 400	Not Available	Not Available	Not Available	Not Available
Ingredient	Original IDLH		Revised IDLH	
DL-alpha-tocopherol acetate	Not Available		Not Available	

MATERIAL DATA

vegetable oil mists (except castor, cashew nut and similar irritant oils)

TLV TWA: 10 mg/m3

ES TWA: 10 mg/m3

OSHA PEL TWA: 15 mg/m3, total particulate; 5 mg/m3, respirable particulate

The common vegetable oil mists are considered "nuisance" particulates which have little adverse effect on the lung. They do not produce toxic effects or significant organic disease when exposures are kept under reasonable control. Direct instillation of vegetable oils into rabbit lungs produces acute bronchitis whilst high oral doses are laxatives.

Vegetable oils and rarely, animal oils, may autoxidise (becoming rancid) and polymerise over time. This does not alter their "nuisance" characteristics (other than producing objectionable odours) even though, on occasion, this may introduce new physicochemical problems to the workplace. Vegetable oils (triglycerides) can be divided into three groups; non-drying, semi-drying, and drying oils, depending on their fatty acid pattern. Non-drying oils contains saturated fatty acids that cannot be crosslinked by air oxidation. Olive oil is an example of non-drying oils. Semi-drying oils contain one or two unsaturations that slowly cross-link through oxidation. The semi-drying oil film will never be completely tack-free. Soybean and tall oil are semi-drying oils.

Drying-oils are highly unsaturated oils that oxidise in air to produce a tack-free film with time. A drying-oil is traditionally defined as an oil with an average number of greater than 2.2 diallylic (unsaturated) groups per molecule. Linseed and tung oil are commonly used drying-oils.

Exposure controls

Appropriate	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. General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. 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.		
engineering controls	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 spe welding, spray drift, plating acid fumes, pickling (released at low velocity into a generation)	ed conveyer transfers, zone of active	0.5-1 m/s (100-200 f/min.)
	direct spray, spray painting in shallow booths, drum filling, conveyer loading, c discharge (active generation into zone of rapid air motion)	rusher dusts, gas	1-2.5 m/s (200-500 f/min.)
	grinding, abrasive blasting, tumbling, high speed wheel generated dusts (releas into zone of very high rapid air motion).	ed at high initial velocity	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 c	urrents

	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 veloc at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated 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.		
Personal protection			
Eye and face protection	 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 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	See Hand protection below		
Hands/feet protection	Wear protective gloves, e.g. PVC.		
Body protection	See Other protection below		
Other protection	No special equipment needed when handling small quantities. OTHERWISE: • Overalls. • Barrier cream. • Evewash unit.		
Thermal hazards	Not Available		

Respiratory protection

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.

Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS P2	-	A-PAPR-AUS / Class 1 P2
up to 50 x ES	-	A-AUS / Class 1 P2	-
up to 100 x ES	-	A-2 P2	A-PAPR-2 P2 ^

^ - Full-face

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)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Clear yellow liquid; does not mix with water.		
Physical state	Liquid	Relative density (Water = 1)	0.9-1.0
Odour	Not Available	Partition coefficient n-octanol / water	Not Available

Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Applicable	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Available	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Available	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Available	Volatile Component (%vol)	Not Applicable
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Immiscible	pH as a solution (1%)	Not Applicable
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable. 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

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

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. Not normally a hazard due to non-volatile nature of product
Ingestion	No adverse effects anticipated from normal use. Vitamin E is a fat-soluble vitamin that acts as an antioxidant and free radical scavenger in lipophilic environments and is consumed by approximately 20% of the US population. It requires bile for absorption, and 25% of the vitamin is absorbed orally. Storage of the vitamin occurs in adipose tissue, liver, and muscle. The US recommended dietary allowance is 30 mg/day. Adults receiving 2-3 gm/day of Vitamin E developed skin rashes and mild gastrointestinal irritation with diarrhoea; 1 gm/day was tolerated for months with apparent ill-effect. The oral median lethal dose found in several species is 2 gm/kg, and adverse effects usually are observed at doses greater than 1 gm/kg, which is equivalent to 200-500 mg/kg in humans. Most deleterious effects have been observed in small studies and in case reports. High doses (800 IU/day) of Vitamin E (tocopherol) may produce fatigue and weakness. The symptoms resolve with removal of the drug. Another study reported emotional disturbances in several women taking the same dosages. These symptoms have not been observed in other large series. Transient nausea and gastric distress have been reported at a dosage of 3200 IU/day. Other nonspecific adverse effects, which have been reported rarely, include fatigue, muscle weakness, delayed wound healing, and headache. Thyroid hormone levels of triiodothyronine and thyroxine were decreased in healthy students administered 600 IU/day.
	ingroud normone reversion milodomyronine and myroxine were decreased in nearby students administered 600 10/day.

	Similar findings have been observed in animal studies.		
Skin Contact	Evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis. The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds 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.		
Eye	Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.		
Chronic	Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.		
WSD Keyvit 400	ΤΟΧΙΟΙΤΥ	IRRITATION	
	Not Available	Not Available	
	тохісіту	IRRITATION	
DL-alpha-tocopherol	dermal (rat) LD50: >3000 mg/kg ^[1]	* [ROCHE]	
acetate	Oral (rat) LD50: >10000 mg/kg ^[1]	Eye (rabbit): non-irritating *	

	Skin (rabbit): non-irritating *
Legend:	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

DL-ALPHA- TOCOPHEROL ACETATE	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. May cause skin and eye irritation * Reproductive and mutagenic effects have been observed in tests with laboratory animals * * Alfa Aeser MSDS

Acute Toxicity	0	Carcinogenicity	0
Skin Irritation/Corrosion	*	Reproductivity	0
Serious Eye Damage/Irritation	*	STOT - Single Exposure	*
Respiratory or Skin sensitisation	0	STOT - Repeated Exposure	0
Mutagenicity	\otimes	Aspiration Hazard	\otimes

Legend: X – Data available but does not fill the criteria for classification

Data required to make classification available

S − Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
DL-alpha-tocopherol acetate	EC50	96	Algae or other aquatic plants	0.00086mg/L	3
DL-alpha-tocopherol acetate	LC50	96	Fish	0.000357mg/L	3
DL-alpha-tocopherol acetate	NOEC	96	Fish	11mg/L	2

DL-alpha-tocopherol acetate	EC50	24	Crustacea	>20.6mg/L	2
DL-alpha-tocopherol acetate	EC50	48	Crustacea	>20.6mg/L	2
Legend:	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - 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		Aquatic Toxicity 5. ECETOC Data 8. Vendor		

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. **DO NOT** discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
DL-alpha-tocopherol acetate	HIGH	HIGH

Bioaccumulative potential

Ingredient	Bioaccumulation
DL-alpha-tocopherol acetate	LOW (LogKOW = 11.9136)

Mobility in soil

·····, ····,	
Ingredient	Mobility
DL-alpha-tocopherol acetate	LOW (KOC = 13870000)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods		
Product / Packaging disposal	 Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Authority for disposal. Bury or incinerate residue at an approved site. Recycle containers if possible, or dispose of in an authorised landfill. 	

SECTION 14 TRANSPORT INFORMATION

Labels Required

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 / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

SECTION 15 REGULATORY INFORMATION

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

DL-ALPHA-TOCOPHEROL ACETATE(7695-91-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (DL-alpha-tocopherol acetate)
China - IECSC	Y

Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	Y
Korea - KECI	Y
New Zealand - NZIoC	Υ
Philippines - PICCS	Υ
USA - TSCA	Υ
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Other information

Ingredients with multiple cas numbers

Name	CAS No
DL-alpha-tocopherol acetate	133-80-2, 1406-70-8, 1407-18-7, 18920-61-1, 52225-20-4, 54-22-8, 7695-91-2

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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 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

This document is copyright.

Apart from any fair dealing for the purposes of private study, research, review or criticism, as permitted under the Copyright Act, no part may be reproduced by any process without written permission from CHEMWATCH. TEL (+61 3) 9572 4700.