

Datamark Ink DOD AC-EXP9-3

Datamark Identification

Chemwatch: **69223**
 Version No: **6.1.1.1**
 Material Safety Data Sheet according to NOHSC and ADG requirements

Chemwatch Hazard Alert Code: **3**

Issue Date: **04/04/2014**
 Print Date: **10/07/2014**
 Initial Date: **Not Available**
 S.Local.AUS.EN

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

Product Identifier

Product name	Datamark Ink DOD AC-EXP9-3
Chemical Name	Not Applicable
Synonyms	20601001
Proper shipping name	PRINTING INK, flammable or PRINTING INK RELATED MATERIAL (including printing ink thinning or reducing compound), flammable
Chemical formula	Not Applicable
Other means of identification	Not Available
CAS number	Not Applicable

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

Relevant identified uses	The use of a quantity of material in an unventilated or confined space may result in increased exposure and an irritating atmosphere developing. Before starting consider control of exposure by mechanical ventilation. Use according to manufacturer's directions. Ink.
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Details of the manufacturer/importer

Registered company name	Datamark Identification
Address	19 Lang Parade QLD 4064 Milton Australia
Telephone	1300 657 633
Fax	+61 7 3271 2751
Website	Not Available
Email	Not Available

Emergency telephone number

Association / Organisation	Not Available
Emergency telephone numbers	0414 373 494
Other emergency telephone numbers	0414 373 494

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

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

Poisons Schedule	S6
Risk Phrases ^[1]	R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
	R36/38 Irritating to eyes and skin.
	R11 Highly flammable.
	R67 Vapours may cause drowsiness and dizziness.
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI
GHS Classification ^[1]	Flammable Liquid Category 2, Acute Toxicity (Oral) Category 4, Acute Toxicity (Dermal) Category 4, Acute Toxicity (Inhalation) Category 4, Skin Corrosion/Irritation Category 2, Eye Irrit. 2, STOT - SE (Narcosis) Category 3
Legend:	1. Classified by Chemwatch; 2. Classification drawn from HSIS; 3. Classification drawn from EC Directive 1272/2008 - Annex VI

Label elements

Datamark Ink DOD AC-EXP9-3

GHS label elements



SIGNAL WORD

DANGER

Hazard statement(s)

H225	Highly flammable liquid and vapour
H302	Harmful if swallowed
H312	Harmful in contact with skin
H332	Harmful if inhaled
H315	Causes skin irritation
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness

Supplementary statement(s)

Not Applicable

CLP classification (additional)

Not Applicable

Precautionary statement(s): Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271	Use only outdoors or in a well-ventilated area.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P270	Do not eat, drink or smoke when using this product.

Precautionary statement(s): Response

P321	Specific treatment (see advice on this label).
P370+P378	In case of fire: Use... to extinguish.
P305+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.

Precautionary statement(s): Storage

P403+P235	Store in a well-ventilated place. Keep cool.
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 to authorised chemical landfill or if organic to high temperature incineration
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Label elements



Relevant risk statements are found in section 2

Indication(s) of danger

F, Xi

SAFETY ADVICE

S07	Keep container tightly closed.
S09	Keep container in a well ventilated place.
S13	Keep away from food, drink and animal feeding stuffs.
S16	Keep away from sources of ignition. No smoking.
S23	Do not breathe gas/fumes/vapour/spray.
S25	Avoid contact with eyes.
S26	In case of contact with eyes, rinse with plenty of water and contact Doctor or Poisons Information Centre.
S29	Do not empty into drains.
S33	Take precautionary measures against static discharges.

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S36	Wear suitable protective clothing.
S37	Wear suitable gloves.
S39	Wear eye/face protection.
S40	To clean the floor and all objects contaminated by this material, use water.
S41	In case of fire and/or explosion, DO NOT BREATHE FUMES.
S43	In case of fire use...
S46	If swallowed, seek medical advice immediately and show this container or label.
S51	Use only in well ventilated areas.
S56	Dispose of this material and its container at hazardous or special waste collection point.
S64	If swallowed, rinse mouth with water (only if the person is conscious).

Other hazards

	Cumulative effects may result following exposure*.
	May produce discomfort of the respiratory system*.
	Limited evidence of a carcinogenic effect*.
	May possibly affect fertility*.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
64-17-5	30-60	ethanol
111-76-2	30-60	ethylene glycol monobutyl ether
Not Available	1-10	resin
Not Available	1-10	pigment
	NotSpec.	NOTE: Manufacturer has supplied full ingredient
	NotSpec.	information to allow CHEMWATCH assessment.

NOTE: Manufacturer has supplied full ingredient information to allow CHEMWATCH assessment.

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> ▶ 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	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> ▶ 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	<ul style="list-style-type: none"> ▶ 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.
Ingestion	<ul style="list-style-type: none"> ▶ 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.

Indication of any immediate medical attention and special treatment needed

	<p>Followed acute or short term repeated exposures to ethylene glycol monoalkyl ethers and their acetates:</p> <ul style="list-style-type: none"> ▶ Hepatic metabolism produces ethylene glycol as a metabolite. ▶ Clinical presentation, following severe intoxication, resembles that of ethylene glycol exposures. ▶ Monitoring the urinary excretion of the alkoxyacetic acid metabolites may be a useful indication of exposure. [Ellenhorn and Barceloux: Medical Toxicology] <p>For acute or short term repeated exposures to ethanol:</p>
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- ▶ Acute ingestion in non-tolerant patients usually responds to supportive care with special attention to prevention of aspiration, replacement of fluid and correction of nutritional deficiencies (magnesium, thiamine pyridoxine, Vitamins C and K).
- ▶ Give 50% dextrose (50-100 ml) IV to obtunded patients following blood draw for glucose determination.
- ▶ Comatose patients should be treated with initial attention to airway, breathing, circulation and drugs of immediate importance (glucose, thiamine).
- ▶ Decontamination is probably unnecessary more than 1 hour after a single observed ingestion. Cathartics and charcoal may be given but are probably not effective in single ingestions.
- ▶ Fructose administration is contra-indicated due to side effects.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

- ▶ Alcohol stable foam.
- ▶ Dry chemical powder.
- ▶ BCF (where regulations permit).
- ▶ Carbon dioxide.

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.
- ▶ May be violently or explosively reactive.
- ▶ Wear breathing apparatus plus protective gloves in the event of a fire.
- ▶ Prevent, by any means available, spillage from entering drains or water course.

Fire/Explosion Hazard

- ▶ Liquid and vapour are highly flammable.
- ▶ Severe fire hazard when exposed to heat, flame and/or oxidisers.
- ▶ Vapour may travel a considerable distance to source of ignition.
- ▶ Heating may cause expansion or decomposition leading to violent rupture of containers.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills

- ▶ Remove all ignition sources.
- ▶ Clean up all spills immediately.
- ▶ Avoid breathing vapours and contact with skin and eyes.
- ▶ Control personal contact with the substance, by using protective equipment.

Major Spills

- ▶ Clear area of personnel and move upwind.
- ▶ Alert Fire Brigade and tell them location and nature of hazard.
- ▶ May be violently or explosively reactive.
- ▶ Wear breathing apparatus plus protective gloves.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling

- ▶ Containers, even those that have been emptied, may contain explosive vapours.
 - ▶ Do NOT cut, drill, grind, weld or perform similar operations on or near containers.
- Contains low boiling substance:**
Storage in sealed containers may result in pressure buildup causing violent rupture of containers not rated appropriately.
- ▶ Check for bulging containers.

Other information

- ▶ Store in original containers in approved flame-proof area.
- ▶ No smoking, naked lights, heat or ignition sources.
- ▶ **DO NOT store in pits, depressions, basements or areas where vapours may be trapped.**
- ▶ Keep containers securely sealed.

Conditions for safe storage, including any incompatibilities

Suitable container

- ▶ **DO NOT use aluminium or galvanised containers**
- ▶ 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 (l) : Drums and jerry cans must be of the non-removable head type.

Storage incompatibility

- ▶ Avoid reaction with oxidising agents



+

X

X

X

X

+

X — Must not be stored together

- 0 — May be stored together with specific preventions
- + — May be stored together

PACKAGE MATERIAL INCOMPATIBILITIES

Not Available

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA


Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	ethanol	Ethyl alcohol	1880 mg/m3 / 1000 ppm	Not Available	Not Available	Not Available
Australia Exposure Standards	ethylene glycol monobutyl ether	2-Butoxyethanol	96.9 mg/m3 / 20 ppm	242 mg/m3 / 50 ppm	Not Available	Sk

EMERGENCY LIMITS

Ingredient	TEEL-0	TEEL-1	TEEL-2	TEEL-3
ethanol	1000 ppm	3000 ppm	3300 ppm	3300 ppm
ethylene glycol monobutyl ether	50 ppm	50 ppm	100 ppm	700 ppm

Ingredient	Original IDLH	Revised IDLH
ethanol	15,000 ppm	3,300 [LEL] ppm
ethylene glycol monobutyl ether	700 ppm	700 [Unch] ppm
resin	Not Available	Not Available
pigment	Not Available	Not Available

Exposure controls

Appropriate engineering controls	<p>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:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>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.</p>
Personal protection	
Eye and face protection	<ul style="list-style-type: none"> ▶ 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.
Skin protection	See Hand protection below
Hands/feet protection	<ul style="list-style-type: none"> ▶ Wear chemical protective gloves, e.g. PVC. ▶ Wear safety footwear or safety gumboots, e.g. Rubber <p>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 can not be calculated in advance and has therefore to be checked prior to the application.</p> <p>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.</p>
Body protection	See Other protection below
Other protection	<ul style="list-style-type: none"> ▶ Overalls. ▶ PVC Apron. ▶ PVC protective suit may be required if exposure severe. ▶ Eyewash unit.
Thermal hazards	Not Available

Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the **computer-generated** selection:

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Material	CPI
BUTYL	A

Respiratory protection

Type A 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	Half-Face	Full-Face	Powered Air

NITRILE	A
PE/EVAL/PE	A
NEOPRENE	B
PVC	B
##ethylene glycol monobutyl	ether

* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

Minimum Protection Factor	Respirator	Respirator	Respirator
up to 5 x ES	A-AUS / Class 1	-	A-PAPR-AUS / Class 1
up to 25 x ES	Air-line*	A-2	A-PAPR-2
up to 50 x ES	-	A-3	-
50+ x ES	-	Air-line**	-

^ - 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	Black flammable liquid with an alcohol odour; miscible with water.		
Physical state	Liquid	Relative density (Water = 1)	0.80
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)	>78	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	<23	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Flammable.	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 Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Miscible	pH as a solution(1%)	Not Applicable
Vapour density (Air = 1)	>1	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	<ul style="list-style-type: none"> ▶ 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	Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo. Limited evidence or practical experience suggests that the material may produce irritation of the respiratory system, in a significant number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage.
Ingestion	Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. Severe acute exposure to ethylene glycol monobutyl ether, by ingestion, may cause kidney damage, haemoglobinuria, (blood in urine) and is potentially fatal. Ingestion of ethanol may produce nausea, vomiting, gastrointestinal bleeding, abdominal pain and diarrhoea. Systemic effects:

	<table border="1"> <tr> <td>Blood concentration:</td> <td>Effects:</td> </tr> <tr> <td><1.5 g/l</td> <td>Mild: Impaired visual acuity, coordination and reaction time, emotional lability</td> </tr> <tr> <td>1.5-3.0 g/l</td> <td>Moderate: Slurred speech, confusion, ataxia, emotional lability, perceptual and sensation disturbances possible blackout spells, and incoordination with impaired objective performance in standardised tests.</td> </tr> </table>	Blood concentration:	Effects:	<1.5 g/l	Mild: Impaired visual acuity, coordination and reaction time, emotional lability	1.5-3.0 g/l	Moderate: Slurred speech, confusion, ataxia, emotional lability, perceptual and sensation disturbances possible blackout spells, and incoordination with impaired objective performance in standardised tests.
Blood concentration:	Effects:						
<1.5 g/l	Mild: Impaired visual acuity, coordination and reaction time, emotional lability						
1.5-3.0 g/l	Moderate: Slurred speech, confusion, ataxia, emotional lability, perceptual and sensation disturbances possible blackout spells, and incoordination with impaired objective performance in standardised tests.						
Skin Contact	<p>Skin contact with the material may be harmful; systemic effects may result following absorption. The material produces moderate skin irritation; evidence exists, or practical experience predicts, that the material either</p> <ul style="list-style-type: none"> ▶ produces moderate inflammation of the skin in a substantial number of individuals following direct contact, and/or ▶ produces significant, but moderate, 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. <p>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.</p>						
Eye	<p>Evidence exists, or practical experience predicts, that the material may cause severe 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. Eye contact may cause significant inflammation with pain. Corneal injury may occur; permanent impairment of vision may result unless treatment is prompt and adequate. Repeated or prolonged exposure to irritants may cause inflammation characterised by a temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.</p>						
Chronic	<p>Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.</p> <p>There is some evidence that human exposure to the material may result in developmental toxicity. This evidence is based on animal studies where effects have been observed in the absence of marked maternal toxicity, or at around the same dose levels as other toxic effects but which are not secondary non-specific consequences of the other toxic effects.</p> <p>Exposure to the material may cause concerns for human fertility, on the basis that similar materials provide some evidence of impaired fertility in the absence of toxic effects, or evidence of impaired fertility occurring at around the same dose levels as other toxic effects, but which are not a secondary non-specific consequence of other toxic effects.</p>						

Datamark Ink DOD AC-EXP9-3	TOXICITY	IRRITATION
	Not Available	Not Available
ethanol	TOXICITY	IRRITATION
	Inhalation (rat) LC50: 20,000 ppm/10h	Eye (rabbit): 500 mg SEVERE
	Inhalation (rat) LC50: 64000 ppm/4h	Eye (rabbit):100mg/24hr-moderate
	Oral (rat) LD50: 7060 mg/kg	Skin (rabbit):20 mg/24hr-moderate
	Not Available	Skin (rabbit):400 mg (open)-mild
	Not Available	Not Available
ethylene glycol monobutyl ether	TOXICITY	IRRITATION
	Dermal (Guinea pig) LD50: 210 mg/kg **	* [Union Carbide]
	Dermal (rabbit) LD50: 220 mg/kg	Eye (rabbit): 100 mg SEVERE
	Inhalation (Rat) LC50: 2210 mg/m3 **	Eye (rabbit): 100 mg/24h-moderate
	Inhalation (Rat) LC50: 450 ppm *	Skin (rabbit): 500 mg, open; mild
	Oral (Rat) LD50: 300 mg/kg **	
	Oral (rat) LD50: 470 mg/kg	
	Not Available	Not Available

* Value obtained from manufacturer's msds

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances

Datamark Ink DOD AC-EXP9-3	<p>The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis.</p>
ETHANOL	<p>The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.</p>
ETHYLENE GLYCOL MONOBUTYL ETHER	<p>The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p> <p>The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis.</p> <p>NOTE: Changes in kidney, liver, spleen and lungs are observed in animals exposed to high concentrations of this substance by all routes. ** ASCC (NZ) SDS</p>

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

Legend: ✓ – Data required to make classification available
 ✗ – Data available but does not fill the criteria for classification
 ⊘ – Data Not Available to make classification

CMR STATUS

SKIN	ethylene glycol monobutyl ether	Australia Exposure Standards - Skin	Sk
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SECTION 12 ECOLOGICAL INFORMATION

Toxicity

For ethylene glycol monoalkyl ethers and their acetates:

Members of this category include ethylene glycol propyl ether (EGPE), ethylene glycol butyl ether (EGBE) and ethylene glycol hexyl ether (EGHE)

Environmental fate:

The ethers, like other simple glycol ethers possess no functional groups that are readily subject to hydrolysis in the presence of waters. The acetates possess an ester group that hydrolyses in neutral ambient water under abiotic conditions.

Level III fugacity modeling indicates that category members, when released to air and water, will partition predominately to water and, to a lesser extent, to air and soil. Estimates of soil and sediment partition coefficients (Kocs ranging from 1- 10) suggest that category members would exhibit high soil mobility.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
Not Available	Not Available	Not Available

Bioaccumulative potential

Ingredient	Bioaccumulation
Not Available	Not Available

Mobility in soil

Ingredient	Mobility
Not Available	Not Available

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> ▶ Containers may still present a chemical hazard/ danger when empty. ▶ Return to supplier for reuse/ recycling if possible. Otherwise: <ul style="list-style-type: none"> ▶ If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. ▶ Where possible retain label warnings and MSDS and observe all notices pertaining to the product.
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SECTION 14 TRANSPORT INFORMATION

Labels Required

	
Marine Pollutant	NO
HAZCHEM	*3YE

Land transport (ADG)

UN number	1210
Packing group	II
UN proper shipping name	PRINTING INK, flammable or PRINTING INK RELATED MATERIAL (including printing ink thinning or reducing compound), flammable
Environmental hazard	No relevant data
Transport hazard class(es)	Class : 3 Subrisk : Not Applicable

Special precautions for user	Special provisions	163 *
	Limited quantity	5 L

Air transport (ICAO-IATA / DGR)

UN number	1210	
Packing group	II	
UN proper shipping name	Printing ink flammable; Printing ink related material (including printing ink thinning or reducing compound), flammable	
Environmental hazard	No relevant data	
Transport hazard class(es)	ICAO/IATA Class	3
	ICAO / IATA Subrisk	Not Applicable
	ERG Code	3L
Special precautions for user	Special provisions	A3A72
	Cargo Only Packing Instructions	364
	Cargo Only Maximum Qty / Pack	60 L
	Passenger and Cargo Packing Instructions	353
	Passenger and Cargo Maximum Qty / Pack	5 L
	Passenger and Cargo Limited Quantity Packing Instructions	Y341
	Passenger and Cargo Limited Maximum Qty / Pack	1 L

Sea transport (IMDG-Code / GGVSee)

UN number	1210	
Packing group	II	
UN proper shipping name	PRINTING INK flammable or PRINTING INK RELATED MATERIAL (including printing ink thinning or reducing compound), flammable	
Environmental hazard	No relevant data	
Transport hazard class(es)	IMDG Class	3
	IMDG Subrisk	Not Applicable
Special precautions for user	EMS Number	F-E , S-D
	Special provisions	163
	Limited Quantities	5 L

SECTION 15 REGULATORY INFORMATION**Safety, health and environmental regulations / legislation specific for the substance or mixture**

ethanol(64-17-5) is found on the following regulatory lists	"IOFI Global Reference List of Chemically Defined Substances","International Council of Chemical Associations (ICCA) - High Production Volume List","International Maritime Dangerous Goods Requirements (IMDG Code)","World Anti-Doping Agency - The 2009 Prohibited List World Anti-Doping Code - Substances Prohibited in Particular Sports (French)","World Anti-Doping Agency - The 2009 Prohibited List World Anti-Doping Code - Substances Prohibited in Particular Sports (Korean)","International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index","Australia Exposure Standards","IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances","Australia FAISD Handbook - First Aid Instructions, Warning Statements, and General Safety Precautions","FisherTransport Information","IMO Provisional Categorization of Liquid Substances - List 2: Pollutant only mixtures containing at least 99% by weight of components already assessed by IMO","Australia Dangerous Goods Code (ADG Code) - List of Emergency Action Codes","United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)","OECD List of High Production Volume (HPV) Chemicals","Joint FAO/WHO Expert Committee on Food Additives (JECFA) - Specifications for Flavourings","OSPAR National List of Candidates for Substitution - Norway","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix B (Part 3)","WHO Model List of Essential Medicines - Adults","Australia Inventory of Chemical Substances (AICS)","Belgium Federal Public Service Mobility and Transport, Regulations concerning the International Carriage of Dangerous Goods by Rail - Table A: Dangerous Goods List - RID 2013 (Dutch)","IMO IBC Code Chapter 18: List of products to which the Code does not apply","UNECE - Kiev Protocol on Pollutant Release and Transfer Registers - Annex II","World Anti-Doping Agency - The 2014 Prohibited List World Anti-Doping Code - Substances Prohibited in Particular Sports","Australia National Pollutant Inventory","World Anti-Doping Agency - The 2009 Prohibited List World Anti-Doping Code - Substances Prohibited in Competition (German)","OECD Existing Chemicals Database","Sigma-AldrichTransport Information","Australia High Volume Industrial Chemical List (HVICL)","United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)","Australia Dangerous Goods Code (ADG Code) - Dangerous Goods List","GESAMP/EHS Composite List - GESAMP Hazard Profiles","FEMA Generally Recognized as Safe (GRAS) Flavoring Substances 23 - Examples of FEMA GRAS Substances with Non-Flavor Functions","International Air Transport Association (IATA) Dangerous Goods Regulations","Australia Hazardous Substances Information System - Consolidated Lists","International Fragrance Association (IFRA) Survey: Transparency List","IMO IBC Code Chapter 17: Summary of minimum requirements","Acros Transport Information"
ethylene glycol monobutyl ether(111-76-2) is found on the following regulatory lists	"IOFI Global Reference List of Chemically Defined Substances","International Maritime Dangerous Goods Requirements (IMDG Code)","Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix F (Part 3)","International Maritime Dangerous Goods Requirements (IMDG Code) - Substance Index","Australia Exposure Standards","IMO Provisional Categorization of Liquid Substances - List 3: (Trade-named) mixtures containing at least 99% by weight of components already assessed by IMO, presenting safety hazards","IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances","Australia FAISD Handbook - First Aid Instructions, Warning Statements, and General Safety Precautions","Australia Dangerous Goods Code (ADG Code) - List of Emergency Action Codes","United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (English)","OECD List of High Production Volume (HPV)

Chemicals", "OSPAR National List of Candidates for Substitution – Norway", "International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs", "Australia Inventory of Chemical Substances (AICS)", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix I", "Belgium Federal Public Service Mobility and Transport, Regulations concerning the International Carriage of Dangerous Goods by Rail - Table A: Dangerous Goods List - RID 2013 (Dutch)", "Australia National Pollutant Inventory", "OECD Existing Chemicals Database", "Sigma-Aldrich Transport Information", "Australia High Volume Industrial Chemical List (HVICL)", "United Nations Recommendations on the Transport of Dangerous Goods Model Regulations (Spanish)", "Australia Dangerous Goods Code (ADG Code) - Dangerous Goods List", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Appendix E (Part 2)", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "International Air Transport Association (IATA) Dangerous Goods Regulations", "Australia Hazardous Substances Information System - Consolidated Lists", "International Fragrance Association (IFRA) Survey: Transparency List", "IMO IBC Code Chapter 17: Summary of minimum requirements", "Acros Transport Information", "Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 6"

SECTION 16 OTHER INFORMATION

Other information

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/references

The (M)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.

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