

# SAFETY DATA SHEET

## COLOURLESS FRIGILENE

Ref: T65150

UN NO 1263  
LQ 6  
P&Gp 11

### 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY

5 hr / 20 hr

**PRODUCT NAME:** COLOURLESS FRIGILENE  
**PART No.:** 65150  
**APPLICATIONS:** Intended for use as an additive to laquers. - for industrial use only.  
**SUPPLIER:** Wm. Canning Ltd.  
Surface Finishing Division,  
PO Box 288, Great Hampton St.,  
Birmingham B18 6AS  
**TEL:** 0121-2368621

### 2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS No.	CONTENTS	HEALTH (class)	RISK (R No.)
XYLENE	1330-20-7	30-60 %w/w	Xn	20/21, 38
BUTANOL	71-36-3	10-30 %w/w	Xn	20
BUTYL ACETATE	123-86-4	30-60 %w/w		

### 3 HAZARDS IDENTIFICATION

Flammable.  
Harmful by inhalation and in contact with skin.  
Irritating to skin.  
Dangerous for the ozone layer.

### 4 FIRST AID MEASURES

**GENERAL:** NOTE! Effects may be delayed. Keep affected person under observation. Move the exposed person to fresh air at once. Perform artificial respiration if breathing has stopped. Keep the affected person warm and at rest. Get prompt medical attention.

**INHALATION:** Move the exposed person to fresh air at once. Perform artificial respiration if breathing has stopped. Keep the affected person warm and at rest. Get prompt medical attention.

**INGESTION:** NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! DO NOT induce vomiting. Get medical attention immediately. Promptly get affected personnel to drink large volumes of water to dilute the swallowed chemical.

**SKIN:** Remove affected person from source of contamination. Promptly flush contaminated skin with water. Promptly remove clothing if soaked through and flush the skin with water. Get medical attention immediately.

**EYES:** Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention immediately. Continue to rinse.

### 5 FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Water spray, fog or mist. Foam. Alcohol resistant foam. Carbon dioxide (CO2). Dry chemicals, sand, dolomite etc. DO NOT use waterjet.

#### SPECIAL FIRE FIGHTING PROCEDURES:

Use water to keep fire exposed containers cool and disperse vapours. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Water spray may be used to flush spills away from exposures and dilute spills to non-flammable mixtures. Keep run-off water out of sewers and water sources. Dike for water control. Cool containers exposed to flames with water until well after the fire is out. Move container from fire area if it can be done without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Use water spray to reduce vapours. Do not get water inside container. If risk of water pollution occurs, notify appropriate authorities.

# COLOURLESS FRIGILENE

## UNUSUAL FIRE & EXPLOSION HAZARDS:

May explode in a fire. May develop highly toxic or corrosive fumes if heated. May travel considerable distance to source of ignition and flash back. Vapour explosion and poison hazard indoors, outdoors and in sewers.

## HAZARDOUS DECOMPOSITION PRODUCTS:

Fire or high temperatures create: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Nitrous gases (NO<sub>x</sub>).

## PROTECTIVE MEASURES IN FIRE:

Self contained breathing apparatus. Full protective clothing.

## ACCIDENTAL RELEASE MEASURES

## PERSONAL PRECAUTIONS DURING SPILL:

Protective clothing covering all parts of the body must be used to prevent skin and eye contact.

## PRECAUTIONS TO PROTECT ENVIRONMENT:

Drains must be covered to avoid sewer/river contamination. In case of major spillage alert the emergency services and local water authority

## SPILL CLEANUP METHODS:

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Collect with absorbent, non-combustible material into suitable containers. Take to a safe outdoor area for evaporation.

## HANDLING AND STORAGE

### USAGE PRECAUTIONS:

Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Avoid acids, moisture, and combustible materials. Wear full protective clothing for prolonged exposure and/or high concentrations. Do not use contact lenses. Do not handle broken packages without protective equipment.

### STORAGE PRECAUTIONS:

Flammable/combustible - Keep away from oxidizers, heat and flames. Keep in cool, dry, ventilated storage and closed containers.

### STORAGE CRITERIA:

Flammable liquid storage.

## EXPOSURE CONTROLS AND PERSONAL PROTECTION

INGREDIENT NAME	CAS No	STD	LT EXP (8 hrs)	ST EXP (15 min)
ETHYLENE	1330-20-7	OES.	100 ppm(Sk)	150 ppm(Sk)
METHANOL	71-36-3	OES.		50 ppm(Sk)
BUTYL ACETATE	123-86-4	OES.	150 ppm	200 ppm

## PROTECTIVE EQUIPMENT:



## PROCESS CONTROL MEASURES:

Use engineering controls to reduce air contamination to permissible exposure level.

## VENTILATION:

Provide adequate general and local exhaust ventilation.

## RESPIRATORS:

Respiratory protection must be used if air concentration exceeds acceptable level.

## PROTECTIVE GLOVES:

Protective gloves and goggles must be used if there is a risk of direct contact or splash.

## EYE PROTECTION:

Wear splash-proof eye goggles to prevent any possibility of eye contact. Contact lenses should not be worn when working with this chemical!

## OTHER PROTECTION:

Provide eyewash station and safety shower. Impervious clothing, gloves and minimum 8 inches face shield. Wear appropriate clothing to prevent any possibility of skin contact with solutions containing 10% or more of this chemical.

## HYGIENIC WORK ROUTINES:

Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes wet or contaminated. Contaminated clothing to be placed in closed container until disposal or decontamination. Warn cleaning personnel of chemical's hazardous properties. Promptly remove non-impervious clothing contaminated with solid or liquid chemical or stronger than 10% solutions.

## PHYSICAL AND CHEMICAL PROPERTIES

### APPEARANCE:

Liquid.

# COLOURLESS FRIGILENE

COLOUR:	Light (or pale). Yellow.		
ODOUR/TASTE:	Aromatic. / Alcohol.		
SOLUBILITY DESCRIPTION:	Miscible with petroleum based solvents.		
BULK DENSITY:	0.90 - 0.95	VAPOUR DENSITY (air=1):	~4
VAPOUR PRESSURE:	~8mbar @ 20 °C		
VISCOSITY:	60 - 67 s @ 20 °C	FLASH POINT (°C):	23
FLASH POINT METHOD:	CC (Closed cup).		
AUTO IGNITION TEMPERATURE (°C):	343	FLAMMABILITY LIMIT (lower %):	1
FLAMMABILITY LIMIT (upper %):	12		

## 0 STABILITY AND REACTIVITY

STABILITY:	Avoid: Heat, sparks, flames. Shocks and physical damage. Moisture. Static electricity.
CONDITIONS TO AVOID:	Avoid heat, flames and other sources of ignition. Strong oxidising agents. Strong mineral acids.
MATERIALS TO AVOID:	Bases,alkalies (inorganic). Strong oxidizing agents. Strong reducing agents. Massive, solid metal. Powdered metal. Alkali metals. Alkali earth metals. Amines. Azo, diazo, hydrazine comps. Dithiocarbamates. Inorganic cyanides. Cyanohydrines. Inorganic nitrides. Inorganic halides.
HAZARDOUS DECOMPOSITION PRODUCTS:	Fire or high temperatures create: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO2). Nitrous gases (NOx).

## 1 TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:	Vapours are irritating to the respiratory tract and cause central nervous depression. Causes headaches, nausea, vomiting, eye/nose/throat irritation, dizziness and vertigo.
HEALTH HAZARDS, GENERAL:	can be readily absorbed through the skin.
HEALTH WARNINGS:	Gas or vapour is harmful on prolonged exposure or in high concentration. Irritant of eyes and mucous membranes. This chemical may cause skin/eye irritation. May cause irritation to the respiratory system. Prolonged inhalation of high concentrations may damage respiratory system. May cause stomach pain or vomiting.Repeated exposure may cause chronic eye irritation. Contact with concentrated chemical may very rapidly cause severe eye damage, possibly loss of sight. Serious damage to the lining of nose, throat and lungs. Chronic inflammation of nose, throat and bronchial tubes. Acute eczematous dermatitis, contact type erythema, oedema, papules, vesicles, bullae, crusts, desquamation). Swallowing concentrated chemical may cause severe internal injury. Erosion of exposed front teeth. Keratosis (thickening of the horny layer of the skin).
ROUTE OF ENTRY:	Inhalation. Ingestion. Skin and/or eye contact.
TARGET ORGANS:	Eyes. Respiratory system, lungs. Skin. Teeth. Mucous membranes.
MEDICAL SYMPTOMS:	Extreme irritation of eyes and mucous membranes, including burning and tearing. Irritation, burning, lacrimation, blurred vision after liquid splash. Irritation of nose due to vapour or dust contact. Rhinitis (inflammation of the nasal mucous membranes). Upper respiratory irritation. General respiratory distress, unproductive cough. Delayed, often serious breathing problems. May cause suffocation. Severe skin irritation. Nausea, vomiting. Diarrhoea. Dizziness.
MEDICAL CONSIDERATIONS:	Chronic respiratory and obstructive airway diseases. Skin disorders and allergies. Pre-existing eye problems.

## 2 ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS:	Dangerous for the environment if discharged into watercourses.
DEGRADABILITY:	Practically biodegradable using suitably activated biological sewage treatment.

## 3 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS:	Dispose of as Special Waste. Confirm disposal procedures with environmental engineer and local regulations. Contact specialist disposal companies.
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# COLOURLESS FRIGILENE

## 4 TRANSPORT INFORMATION

GENERAL: Segregate from oxidisers and strong mineral acids by at least one pallet distance.

LABEL FOR CONVEYANCE:



LOAD:

UN No: 1263  
HAZARD CLASS (ADR): Class 3: Flammable liquids.

ADR LABEL No: 3

RAIL:

RAIL TRANSPORT CLASS No: 3

RAILROAD PT: 32(b)

SEA:

SEA TRANSPORT CLASS No: 3.2

IMDG Page No: 3268

SEA PACK GR: II

MARINE POLLUTANT: No.

AIR:

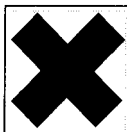
AIR TRANSPORT CLASS No: 1263

AIR TRANSPORT CLASS No: 3.2

AIR PACK GR: II

## 5 REGULATORY INFORMATION

LABEL FOR SUPPLY:



HARMFUL

HAZARD PHRASES:

R-10 Flammable.  
R-20/21 Harmful by inhalation and in contact with skin.  
R-38 Irritating to skin.

SAFETY PHRASES:

S-16 Keep away from sources of ignition - No Smoking.  
S-23 Do not breathe gas/fumes/vapour/spray.  
S-25 Avoid contact with eyes.  
S-33 Take precautionary measures against static discharges.

RELEVANT REGULATORY REFERENCES:

Classification, Packaging and Labelling Regulations 1984.  
Health and Safety at Work Act 1974.  
The Control of Substances Hazardous to Health Regulations 1988.

EU DIRECTIVES:

Dangerous Substance Directive 67\548.  
Dangerous Preparations Directive 88\379.  
System of specific information relating to Dangerous Preparations. 91\155.

## 6 OTHER INFORMATION

ISSUED BY: Mr P Moran BSc(Hons) MSc MIOSH

REVISION No. /REPLACES SDS ISSUED:

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SAFETY DATA SHEET STATUS: Approved.

DATE: 02/09/97

# COLOURLESS FRIGILENE

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