

1. **Product :** HYLOMAR UNIVERSAL BLUE, AEROSOL

2. **Composition / Information on Hazardous Ingredients**

<u>Material</u>	<u>%</u>	<u>Health</u>	<u>Risk</u>	<u>CAS No.</u>
Dichloromethane	5-10		R40	75-09-02
Acetone	25-70		R12	67-64-1
Butane	10-25		R12	74-97-8
Propane	10-25		R12	74-98-6

3. **Hazards Identification :**

Harmful contains Dichloromethane. Extremely flammable

Possible risk of irreversible effects.

Slight irritant to skin and eyes especially on prolonged or repeated contact. Exposure well in excess of the MEL may result in loss of consciousness and can prove suddenly fatal. Converted in the body to carbon monoxide which reduces the oxygen-carrying capacity of the blood. UK maximum exposure limit (8hr TWA) 100ppm.

4.0 **First Aid**

Effects of Over Exposure By :

4.1 **Eye Contact :**

Moderately irritant. Splashes in the eye may result in transient eye damage.

4.2 **Skin Contact :**

Slightly irritant. Will remove the natural greases resulting in dryness and cracking and possible dermatitis. Prolonged exposure, eg with soaked clothing can cause reddening, blisters and burns. Can be absorbed but not in amounts sufficient to cause adverse systemic effects.

4.3 **Inhalation :**

Exposure to high concentrations of vapour affects the central nervous system and initially results in light-headedness, nausea, vomiting and headache. The first indications of light-headedness are seen at concentrations of 1000ppm after 20 minutes of exposure. Continued or very high exposure may result in loss of consciousness and can prove suddenly fatal. Can cause irritation of the respiratory tract. Metabolism to carbon monoxide results in carboxyhaemoglobinaemia, reducing the oxygen carrying capacity of the blood and producing light-headedness, confusion and headache.

4.4 **Ingestion :**

The swallowing of small splashes is unlikely to cause any significant reaction. Larger doses can cause internal irritation, nausea, vomiting and diarrhoea – and can lead to drowsiness or unconsciousness.

Long Term Effects of over Exposure :

Repeated exposure to high concentrations may result in loss of consciousness and produce adverse effects on the liver and kidneys. A chronic inhalation study in the mouse has shown it to be carcinogenic in this species, when exposed to levels well above the Maximum Exposure Limit causing tumours in both the liver and the lung. Additional carcinogenic studies in the mouse, rat and the hamster have shown no significant evidence of carcinogenesis. Extensive human epidemiological studies have been shown no evidence or adverse human effects following repeated or prolonged exposure under normal conditions. Biochemical studies have placed the observations found in the mouse into context with human exposure. These studies have strengthened the conclusion the methylene chloride does not present a carcinogenic risk to man. (2) (3).

Occupational Exposure Limit (OEL):

UK Maximum Exposure Limit (8hr TWA)

100ppm (STEL 10 min TWA 250ppm)

Treatment of Over Exposure By:		4.8 Ingestion :
4.5 Eye Contact :	Irrigate for at least 10 minutes with eyewash solution or clean water. Obtain medical attention.	DO NOT induce vomiting. If more than trace quantities have been swallowed and the patient is conscious, wash out mouth with water and give 250ml (half a pint) of warm water to drink. Obtain medical attention.
4.6 Skin Contact :	Remove contaminated clothing. Wash affected area of skin thoroughly with soap & water.	Further Medical Advice:
4.7 Inhalation :	Remove to fresh air, keep warm and at rest. DO NOT WALK the patient about. Administer oxygen if necessary. If breathing has ceased apply artificial respiration. In the event of cardiac arrest apply external cardiac massage. Obtain medical attention.	Symptomatic and supportive therapy as indicated. Cardiac arrest is possible following exposure to high vapour concentrations which may in the presence of circulating catecholamines such as adrenaline cause cardiac arrhythmias and subsequent arrest. Therefore avoid adrenaline and similar sympathomimetics. Absorbents such as activated charcoal may be of value following ingestion – or gastric lavage within four hours of ingestion.
5.0 Fire-Fighting Measures		5.3 Exposure Hazards
5.1 Suitable Extinguishing Media	Alcohol Resistant Foam, CO2, Powder, Water Mist.	Vapours harmful and heavier than air, will collect in pits and cellars etc. When heated to decomposition forms toxic acid fumes of hydrogen chloride.
5.2 Unsuitable Extinguishing Media	Do not use water jet.	5.4 Protective Equipment for Fire-Fighters
		Breathing apparatus should be worn.
6.0 Accidental Release Measures		6.3 Clean-Up and Neutralisation Methods.
6.1 Personal Precautions	Wear respirator, protective goggles and solvent resistant gloves. Exclude sources of ignition and ventilated the area.	Take up with absorbent material, dispose of as described.
6.2 Environmental Precautions	Spillages should be contained and covered with sand or other absorbent material to prevent the flow of liquid into drains, sewers, basement etc	
7.0 Handling and Storage		7.2 Storage Precautions
7.1 Precautions for Safe Handling	Vapours are heavier than air and may spread along floors. They may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentrations higher than the occupational exposure limits. Use only in areas from which all sources of heat, sparks and open flames have been excluded. Avoid skin and eye contact Smoking, eating and drinking should be prohibited in areas of use and storage.	Store below 50°C in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Observe the label precautions. Store separately from oxidising agents and strongly alkaline and strongly acidic materials.
		7.3 Other Information

8.0 Exposure Controls / Personal Protection	8.4 Hand Protection
8.1 Technical Protective Measures Ingredient name OES/MEL 8hr TWA 15m STEL Dichloromethane MEL 100ppm Butane OES 600ppm 750ppm Engineering Measures Provide adequate ventilation to maintain the flammable vapour concentration of substrates to which an OES has been assigned is below that OES (Occupational Exposure Standard).	When skin exposure may occur, advice may sought from the glove suppliers on appropriate types. Barrier creams may help to protect the exposed areas of the skin but are not substitutes for full physical protection. They should not be applied once exposure has occurred.
8.2 Exposure Control Limits	8.5 Skin Protection
8.3 Respiratory Protection Air-fed respiratory equipment should be worn when this product is sprayed if the exposure of the sprayer or other people nearby cannot be controlled to below the occupational exposure limit and engineering controls and measures cannot reasonably be improved.	Cotton or cotton/synthetic overalls are normally suitable. Grossly contaminated clothing should be removed and the skin washed with soap or a proprietary skin cleaner.
9.0 Physical and Chemical Properties	8.6 Eye / Face Protection
9.1 Physical State : Aerosol	Eye protection designed to protect against liquid splashes should be worn.
9.2 Colour : Blue	9.10 Oxidising Properties : None
9.3 Odour : Sweet	9.11 Vapour Pressure : 2.75 bar
9.4 pH Value : N/A	9.12 Vapour Density : Heavier than air
9.5 Boiling Point / Range : 40°C	9.13 Relative density / Specific Gravity : Approx 1
9.6 Flammability : Extremely flammable	9.14 Solubility
9.7 Flashpoint : Below 0°C	9.15 Solubility in Water : N/A
9.8 Autoignition Temperature : >250°C	9.16 Solubility in Fats and Oils : Decreases
9.9 Explosive Limits : LEL 0.8% (% Vol in Air @ 25°C) UEL 66.4% (% Vol in Air @ 25°C)	9.17 Partition Coefficient (n-Octanol / Water) : Not known
10.0 Stability and Reactivity Stable	9.18 Viscosity : Aerosol Miscibility, miscible with most organic solvents
10.1 Conditions to Avoid Contact with red hot surfaces, sparks or naked flames may generate acid fumes.	9.19 Other Information
11.0 Toxicological Information Vapours have depressive effect on central nervous system. Will cause headaches, intoxication, false sense of well being at concentrations as low as 500ppm. At higher concentrations can cause narcotic effect & loss of consciousness. Due to its high volatility, toxic concentrations can rapidly develop. Contact with skin if prolonged can cause dryness & possibly dermatitis. Contact with eyes causes slight irritation but quickly heals without drying.	10.2 Materials to Avoid Alkali metals may cause reaction.
12.0 Ecological Information Not available	10.3 Hazardous Decomposition Products Contact with red hot surfaces, sparks or naked flames may generate small quantities of toxic acid fumes of hydrogen chloride.
13.0 Disposal Considerations Disposal Method Residues should be stored in drums and advice sought from the Waste Disposal Contractor Statutory provisions Local Waste Disposal Authority.	

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14.0 Transport Information

RID/ADR

Class : 2.1

Items :

Hazard No :

UN No. 1950

Proper Shipping Name

Aerosol

IMDG

Class :

No.

PG :

MFAG No :

Proper Shipping Name

Marine Pollutant YES/NO

ICAO/IATA

Class :

UN/ID No.

PG :

Proper Shipping Name

15.0 Regulatory Information

15.1 Classification

Carc, Cat 3, Harmful

15.2 Risk Phrases

R40 Limited evidence of a carcinogenic effect

R12 Extremely flammable

15.3 Safety Phrases

S2 Keep out of reach of children

S23 Do not breathe fumes.

S24/25 Avoid contact with eyes and skin

S46 if swallowed seek medical advice immediately and show this label

15.4 Specific EC Controls

15.5 Relevant UK Legislative Controls

CHIP 2 Regulations 1994

16.0 Other Information

16.1 Training Advice

16.2 Recommended Uses and Restrictions

16.2 Further Information

16.4 Sources of Key Data

Suppliers MSDS Sheets CHIP 2 Regulations 1994.

Every effort has been made to ensure that the information in this Safety Data Sheet is accurate and reliable, but the company cannot accept liability for any loss, injury or damage which may result from its use. Data given in this Safety Data Sheet is solely for the guidance in safe handling and use of the product by customers - they do not constitute a specification. Customers are reminded that there may be applications of our products which are protected by patent, under which they have no rights whatsoever. If any difficulties should arise, we will be happy to discuss them. Customers are encouraged to carry out their own tests. Before using any product, read the label carefully.

T Fullerton. 17.02.01

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