

Comet Chemical Company Ltd.

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Materials Safety Data - (alpha) Methyl Styrene

Shipping Name	UN - 2303
Transport of Dangerous Goods Class	ISOPROPENYLBENZENE
WHMIS Class	Class 3, Packing Group III
Material Use	B 3; D 2B monomer for polymer plastics manufacture

1. HAZARDOUS INGREDIENTS	CAS NUMBER	%	TWAEV (ppm)	LD ₅₀ ORAL	(mg/kg) SKIN	LC ₅₀ ppm INHALATION
(1-Methylethenyl) Benzene	98-83-9	100%	50 ppm	4500	>15,000	>3000

2.

PHYSICAL CHARACTERISTICS

Odour & Appearance	clear, colourless, liquid with characteristic (unpleasant) odour
Odour Threshold	0.06 ppm
Vapour Pressure	1.9 mmHg @ 20°C
Vapour Density (air = 1)	4.1
Boiling Point	165°C
Freezing Point	-23°C
Specific Gravity	0.91
Water Solubility	0.06% (25°C)

3.

FLAMMABILITY & REACTIVITY

Flash Point	48°C
Autoignition Temperature	574°C
Flammable Limits	1.9% - 6.1%
Hazardous Combustion Products	carbon monoxide, nitrogen oxides, smoke
Firefighting Precautions	alcohol foam, dry chemical, water fog, water spray only to cool, product floats on water - water jet spreads flames; firefighters must wear SCBA
Sensitivity to Static Discharge	not sensitive
Sensitivity to Mechanical Impact	sensitive
Chemical Stability	may polymerize when heated, producing a lot of heat; may form peroxides on prolonged contact with air
Reactive With	strong oxidising agents; copper & copper alloys, acids, free radicals, halogenated compounds
Dangerous Decomposition Products	organic acids

4.

TOXICOLOGY

EFFECTS OF ACUTE EXPOSURE

Skin Contact	may irritate
Skin Absorption	slight; no toxic effects anticipated by this route
Eye Contact	irritating; lachrymator (causes tears to flow)
Inhalation	irritating (200 ppm objectionable); headache, dizziness, drowsiness, intoxication
Ingestion	toxic effects unknown

(alpha Methyl Styrene, cont'd)

EFFECTS OF CHRONIC EXPOSURE

General	prolonged exposure may cause skin cracking and dermatitis repeated exposure may cause liver and kidney damage; metabolic problems, spasticity
Sensitising	no
Carcinogenic	not a carcinogen, although a human mutagen by RTECS criteria
Reproductive Effect	none known
Synergistic With	not known
Estimated LD ₅₀	4500 mg/kg (oral, mouse); above 15,000 mg/kg (skin, rabbit)
Estimated LC ₅₀	above 3000 ppm (inhalation, rat)

5. PROTECTIVE EQUIPMENT

Hands	“Viton”, PVC, natural rubber gloves
Eyes	safety glasses with side shields or chemical goggles
Respirator	not required if ventilation is adequate (see TWAEV, (1) above), or use organic vapour cartridge
Clothing	impervious (hands, above) apron , boots, long sleeves, if splashing is anticipated

6. ENVIRONMENT

Leak Precaution	dyke to control spillage and prevent environmental contamination; if fire potential exists , blanket with foam as a precaution
Handling Spill	ventilate contaminated area; recover free liquid with explosion-proof pumps; absorb residue on an inert sorbent (dry sand, earth) and store in closed containers for disposal
Waste Disposal	do not flush to sewer ; may be incinerated in approved facility

7. STORAGE & HANDLING

Store and use in a cool dry environment, away from sources of ignition, heat, acids, copper and its alloys, and oxidising agents. Store away from oxidising agents and free radical initiators. Keep below 54°C. Use with adequate ventilation. Ground the container before handling to prevent static discharge which may cause ignition. Do not cut, drill, weld or grind on or near this container. Avoid prolonged contact with skin and wash work clothes frequently. An eye bath and safety shower should be available near the workplace.

8. FIRST AID

SKIN:	Wash with soap and plenty of water. Remove contaminated clothing and do not reuse until thoroughly cleaned or laundered.
EYES:	Wash eyes with plenty of water, holding eyelids open. Seek medical assistance promptly if there is any irritation.
INHALATION:	Remove from contaminated area promptly. CAUTION: Rescuer must not endanger himself! If breathing stops, administer artificial respiration and seek medical aid promptly.
INGESTION:	Give plenty of water to dilute product . Do not induce vomiting (see NOTE below). Keep victim quiet. If vomiting occurs, keep victim’s head below the hips to prevent inhalation of vomited material. Seek medical help promptly.

NOTE: Inadvertent inhalation of vomited material may seriously damage the lungs. The risk and danger of this is greater than the risk of poisoning through absorption of this product. The stomach should be emptied under medical supervision, after the installation of an airway to protect the lungs.

Emergency telephone numbers - weekdays from 8:00 - 5:00 (705) 436-5580
at all other times (800) 567-7455 (Philip Environmental)

Prepared for Comet Chemical Co. Ltd., by *Nicholas Morgan*, November 2002; Revised August 2005

The information herein is given in good faith but no warranty, expressed or implied is made.

PLEASE ENSURE THAT THIS MSDS IS GIVEN TO AND EXPLAINED TO THE PERSON USING THIS PRODUCT.