

SAPREF N° 516673 MA 100/140 10/10/00

MSDS: 2000MA100/140**MA100/140**

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product name:	MA100/140
Product Code:	MA100/140
Product type:	Solvent
Supplier:	Shell & BP SA Petroleum Refineries (Pty) Ltd
Address:	Refinery Road, Prospecton Durban.
Contact numbers:	Tel.- 031-4801 911 Fax.- 031-4681913
Emergency telephone number:	031-4801221
Other information:	Shift Supervisor, Sapref

2. COMPOSITION/INFORMATION ON INGREDIENTS

Substance formal name: Naphtha (petroleum)
Substance chemical family: Aliphatic hydrocarbon
Common name: Med Aromatic Solvent
Synonyms: Special boiling point spirit
CAS number: 64742-49-0

Component name	CAS number	Content range	EC hazard	R phrases
Xylene	110-54-3	< 35% <i>m/m</i>	Xn	R48/20
Toluene		< 35% <i>m/m</i>		

Other information: Based on data on this product, the hazards of the dangerous constituents do not alter the classification or handling advice given elsewhere in this data sheet.

3. HAZARDS IDENTIFICATION

Human health hazards: Aspiration into the lungs may cause chemical pneumonitis which can be fatal. Narcotic at high vapour concentrations.

Safety hazards: Highly flammable. In use, may form flammable/explosive vapour-air mixture. Electrostatic charges may be generated during handling.

Environmental hazards: Toxic to aquatic organisms. May cause long term adverse effects in the aquatic environment.

4. FIRST AID MEASURES**Symptoms and effects:**

Headache, dizziness, nausea, and narcosis. Irritation of the respiratory tract. Dryness of the skin. Skin contact may cause irritation.

First Aid - Inhalation:

Remove to fresh air. If rapid recovery does not occur, obtain medical attention.

First Aid - Skin:

Wash skin with water using soap if available.

First Aid - Eye:

Flush eye with water.

First Aid - Ingestion:

Do not induce vomiting. Give nothing by mouth. If rapid recovery does not occur, obtain medical attention.

Advice to physicians:

Dermatitis may result from prolonged or repeated exposure. Aspiration into the lungs may cause chemical pneumonitis. Causes central nervous system depression.

5. FIRE FIGHTING MEASURES

Specific hazards:	Carbon monoxide may be evolved if incomplete combustion occurs. Will float and can be reignited on surface water. The vapour is heavier than air, spreads along the ground and distant ignition is possible.
Extinguishing media:	Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media:	Water in a jet.
Protective equipment:	Full protective clothing and self-contained breathing apparatus.
Other information:	Keep adjacent containers cool by spraying with water.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:	Avoid contact with skin and eyes. Do not breathe vapour. Extinguish naked flames. No smoking. Avoid sparks. Evacuate the area of all non-essential personnel. Take precautionary measures against static discharge. Shut off leaks, if possible without personal risk.
Personal protection:	Wear PVC gloves, gauntlet type. PVC one-piece suit with integral hood, safety boots - rubber, knee length. Wear full face-piece respirator with organic vapour canister and built-in particulate filter NPF 400 (gas only). In a confined space, wear self-contained breathing apparatus open circuit type NPF 2000.
Environmental precautions:	Prevent contamination of soil and water. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers.
Clean-up methods - small spillage:	Absorb or contain liquid with sand, earth or spill control material. Shovel up and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum. Scrub contaminated surfaces with detergent solution. Retain washings as contaminated waste.
Clean-up methods - large spillage:	Transfer to a labelled, sealable container for product recovery or safe disposal. Treat residues as for small spillage.
Other information:	Risk of explosion. Inform the emergency services if liquid enters surface water drains. Vapour may form an explosive mixture with air. See Section 13 for information on disposal.

7. HANDLING AND STORAGE

Handling:	Avoid prolonged or repeated contact with skin. Do not breathe vapour, spray/mists. Extinguish any naked flames. Remove ignition sources. Avoid sparks. Do not smoke. Take precautionary measures against static discharges. Earth all equipment. Do not empty into drains.
Handling temperatures:	Ambient.
Storage:	Keep container tightly closed and in a well-ventilated place. Keep away from direct sunlight and other sources of heat or ignition. Do not smoke in storage areas.
Storage temperatures:	Ambient
Product transfer:	Take precautionary measures against static discharges. Earth all equipment. Avoid splash filling. Do not use compressed air for filling, discharging or handling. If positive displacement pumps are used, these must be fitted with a non-integral pressure relief valve. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge. Refer to supplier for further product transfer instructions if required.
Recommended materials:	For containers or container linings, use mild steel or stainless steel. For container paints, use zinc silicate or epoxy resins.
Unsuitable materials:	Natural, butyl or nitrile rubbers

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering control measures:	Use only in well ventilated areas
Occupational exposure standards:	None established.
Respiratory protection:	If risk of inhalation wear Half mask respirator with organic vapour cartridge and built-in particulate filter NPF 20 (gas only).
Hand protection:	PVC gloves.
Eye protection:	Monogoggles.
Body protection:	Safety shoes or boots - chemical resistant. Standard issue work clothes.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid.
Colour:	Colourless
Odour:	Paraffinic
Initial boiling point:	100°C
Final boiling point:	140°C
Vapour pressure:	8.5 kPa @ 20°C
Density:	808 kg/m ³ @ 20°C
Kinematic viscosity:	Unknown
Electrical conductivity:	Unknown
Flash point:	Unknown
Explosion limit - upper:	7.0 % (v/v)
Explosion limit - lower:	1.0 % (v/v)
Auto-ignition temperature:	250°C
Solubility in water:	Insoluble
n-octanol/water partition coefficient:	3.4 - 5.2 log P _{OW} (estimated value)
Relative evaporation rate (ASTM D 3539, nBuAc = 1):	4.5
Other properties:	Average Molecular Weight 99

10. STABILITY/REACTIVITY

Stability:	Stable under normal use conditions.
Conditions to avoid:	Heat, flames and sparks.
Materials to avoid:	None known.
Hazardous decomposition products:	None known.

11. TOXICOLOGICAL INFORMATION

Basis for assessment:	Information given is based on a knowledge of the constituents and the toxicology of similar substances.
Acute toxicity - oral:	LD 50 expected to be above 2 000 mg/kg
Acute toxicity - dermal:	LD 50 expected to be above 2 000 mg/kg
Acute toxicity- inhalation:	LC 50 expected to be > 5 mg/l
Eye irritation:	Not irritating.
Skin irritation:	Slight irritant.
Skin sensitisation:	Not a skin sensitiser.
Human effects:	Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis.

12. ECOLOGICAL INFORMATION

Basis for assessment:	Information given is based on a knowledge of the constituents and the ecotoxicology of similar substances.
Mobility:	Floats on water. evaporates within a day from water or soil surfaces. Large volumes may penetrate soil and could contaminate groundwater.
Persistence/degradability:	Inherently biodegradable. Oxidises rapidly by photochemical reactions in air. BOD 5d (20°C): 43-47% ThOD.
Bioaccumulation:	Has the potential to bioaccumulate.
Acute toxicity - fish:	Toxic, $1 < LC_{50} \leq 10$ mg/l (estimated)
Acute toxicity - daphnia:	Toxic, $1 < EC_{50} \leq 10$ mg/l(estimated)
Acute toxicity - algae:	Toxic, $1 < IC_{50} \leq 10$ mg/l(estimated)
Sewage treatment:	Toxic, $1 < EC50 \leq 10$ mg/l, to organisms in sewage treatment plants (estimated)
Other information:	In view of the high rate of loss from solution, the product is unlikely to pose a significant hazard to aquatic life.

13. DISPOSAL CONSIDERATIONS

Precautions:	Refer to Section 7 before handling the product or containers.
Waste disposal:	Recover or recycle if possible. Otherwise incineration.
Product disposal:	Recover or recycle if possible. Otherwise incineration.
Container disposal:	Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums. Send to drum recoverer or metal reclaimer.
Local legislation:	Occupational Health And Safety Act Hazardous Chemical Substances Regulation Section 15.

14. TRANSPORT INFORMATION

UN Number:	3295
UN Class/Packing Group:	3/II
UN Proper Shipping Name:	HYDROCARBONS, LIQUID, N.O.S (SOLVENT NAPHTHA)
UN Number (sea transport, IMO)	3295
IMO Class/Packing Group:	3.2/II
IMO Symbol:	Flammable liquid
IMO Marine pollutant:	No
IMO Proper shipping name:	HYDROCARBONS, LIQUID, N.O.S (SOLVENT NAPHTHA)
ADR/RID Class/Item:	3/3(b)
UN Number (road transport):	3295
ADR/RID Symbol:	Flammable liquid
ADR/RID Kemler Number:	33/3295
ADR/RID Proper Shipping Name:	HYDROCARBONS, LIQUID, N.O.S (SOLVENT NAPHTHA)
UN Number (air transport, ICAO)	3295
IATA/ICAO Class/Packing Group:	3/II
IATA/ICAO Symbol:	Flammable liquid
IATA/ICAO Proper shipping name:	HYDROCARBONS, LIQUID, N.O.S (SOLVENT NAPHTHA)
Local regulations:	SABS 0229-1990. Packaging of dangerous goods for road and rail transportation in South Africa. SABS 0232-1995. Transportation of dangerous goods. Emergency information systems Part 1. Emergency information systems for road transportation.

15. REGULATORY INFORMATION

EC Label name:	Naphtha (petroleum), hydrotreated, light
EC Classification:	Highly flammable Dangerous for the environment.
EC Symbols:	F N
EC Risk phrases:	R11 Highly flammable. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
EC Safety phrases:	S9 Keep container in a well-ventilated place S16 Keep away from sources of ignition - no smoking S29 Do not empty into drains S33 Take precautionary measures against static discharges S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.
ELINCS (EC):	265-151-9
MITI (Japan):	9-1694
TSCA (USA):	Listed
AICS (Australia):	Listed
DSL (Canada):	Listed
TCCL (Korea):	9206-739
PICCS (Philippines):	Listed.
National legislation:	Occupational Health And Safety Act. Hazardous Chemical Substances Regulations. Hazardous Installation Regulations (Draft)

16. OTHER INFORMATION

Uses and restrictions:	Use as a solvent only in industrial manufacturing processes.
Technical contact point:	Occupational Hygienist (MS2)
Technical contact number:	031 4801422
SDS history:	Edition no: 1
Core MSDS history:	None
Revisions highlighted:	None
MSDS distribution:	The information in this document should be made available to all who may handle the product.
Other information:	None

DISCLAIMER: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.
