SAFETY DATA SHEET

LOCKWELL UP18X SIDE-A ISO

Section 1.0 – Identification Of Material And Supplier

Product Name	:	Lockwell UP18X Side A-ISO
Proper Shipping Name	:	Environmentally hazardous substance, liquid, N.O.S.
Recommended use	:	Component of a Polyurea System
Suppliers Name	:	Lockwell Systems Co., Ltd. 199/5 Moo.21, Soi Chongsiri Parkland T.Bangphleeyai, A.Bangplee, Samutprakarn 10540, Thailand
Country of Origin	:	Thailand
Phone Number	:	+662 136 3868
Date of Preparation	:	17 May 2016

Section 2.0 – Hazards Identification

Harmful Xn
Dangerous to the environment N
Contains Amine compounds
Harmful in contact with skin and if swallowed
Irritating to eyes
Harmful: danger of serious damage to health by prolonged exposure if swallowed
Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment

Section 3.0 – Composition / Information on Ingredients

Hazardous Components Amine compounds

Section 4.0 – First Aid Measures

First Aid Skin	After contact with skin, wash immediately with plenty of water. Remove contaminated clothing and shoes. Wash clothing before re-use.
First Aid Eyes	Flush eyes with water, hold eyelids open while washing. Consult an eye specialist immediately.
First Aid Ingested	Give 500 ml water to drink. Induce vomiting. Seek medical advice
First Aid Inhalation	None required at normal temperature. In case of fumes produced during burning, remove person to fresh air.

Section 5.0 – Fire Fighting Measures

Not flammable.
USE EXTINGUISHING MEDIA FOR SURROUNDING FIRE:CO2, Foam, Dry Chemical.
In case of larger fires, water spray should be used.
In case of fire and/or explosion, do not breathe fumes.
Wear a self-contained breathing apparatus.
Collect separately contaminated extinguishing water, do not allow to reach sewage or effluent systems.

Section 6.0 – Accidental Release Measure

Breathing apparatus for fire only.
Do not empty into drains.
Restrict access to area.
Take up with absorbent for chemicals or, if necessary with dry sand.
Large spills may be taken up with pump or vacuum and finished off with dry chemical absorbent.
May require excavation of contaminated soil.

Section 7.0 – Handling and Storage

Handling: Observe the usual precautionary measures for working with chemicals
Mechanical ventilation is recommended.
Local exhaust is needed at source of vapours.
Prevent electrostatic charge
Storage: Keep containers tightly closed and dry.
Keep separated from foodstuffs.
Do not store at temperatures in excess of 50°C in regard of personal safety

Section 8.0 – Exposure Controls / Personal Protection

Occupational Exposure Limits: Not established.

Controls: The control measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. The best protection is to enclose operations and/or provide local exhaust ventilation at the site of substance release. Use a non-sparking, grounded ventilation system separate from other exhaust ventilation systems. Exhaust directly to the outside. Supply sufficient replacement air to make up for air removed. Have a safety shower/eye wash fountain readily available in the immediate work area.

Personal Protection: If engineering controls and work practices are not effective in controlling this material, then wear suitable personal protection equipment.
PROTECTIVE GLOVES: PVC, neoprene, nitrile rube
EYE PROTECTION: Safety Goggles/Face protection
RESPIRATORY PROTECTION: Approved organic vapour respirator when exposed to vapours from heated material. Approved supplied-air respirator, in case of emergency. Keep working clothes separate. Wash hands before breaks and at end of work. Safety precautions for handling freshly moulded polyurethane parts: Depending on the production parameters, any uncovered surfaces of polyurethane mouldings produced using this raw material may contain traces of substances (e.g. catalysts, release agents, starting and reaction products) with hazardous characteristics (e.g. harmful, irritant, corrosive, sensitising). In order to prevent skin contact with the traces of these substances, fully buttoned work clothing and protective gloves whose palm and finger areas at least are coated on the outside with nitrile rubber, PVC or polyurethane should be worn when demoulding or otherwise handling the freshly moulded polyurethane parts.

Section 9.0 – Physical and Chemical Properties

Appearance	: Milky, orange liquid, waxy at low temperatures.
Viscosity	: 350 - 800 cps @ 25°C
Boiling Point	: > 250°C
Freezing Point	: ± 26°C
Relative Density	: ± 1,0
Vapour Pressure	: < 0.1 mbar @ 20°C (Not tested, value for polyol)
Flash Point	: 168°C (Not tested; value for Amine compound)
Flammable Limits	: Not determined
Solubility in water	: Not determined.

Section 10.0 – Stability and Reactivity

Conditions to Avoid: Stable at normal ambient conditions
Storage above 100°C
No hazardous decomposition products when handled and stored correctly.

Incompatible Materials: Strong oxidisers, strong bases and strong acids

Other: No hazardous reaction when used as directed.

Thermal decomposition > 240°C
Hazardous reactions: Self-ignition at high temperatures
Exotherm reaction with isocyanates
Hazardous decomposition products: tetrahydrofuran

Section 11.0 – Toxicology Information

Toxicological information for Amine compound present:

EFFECTS OF ACUTE EXPOSURE:
Irritating to eyes
Harmful in contact with skin and if swallowed
Acute oral toxicity (LD50 rat) > 500 mg/kg

EFFECTS OF CHRONIC EXPOSURE:
Results of a two year feeding study indicate that this product can cause serious damage to health in laboratory animals on prolonged exposure.

Section 12.0 – Ecological Information

Do not allow to escape into waters, wastewater or soil.
Preparation : No data available

Ecotoxicological information for Amine compound present in the preparation:
Very toxic to aquatic organisms
EC50 Daphnia magna - 48h: 0,5 mg/l
Not readily biodegradable
May cause long-term adverse effects in the aquatic environment

Section 13.0 – Disposal Considerations

Disposal Method Product: There are no uniform EC regulations for the disposal of chemicals or residues. The disposal of the latter is regulated in the EC member countries through corresponding laws and regulations. Observe prevailing regulations and incinerate.

Disposal Method Packaging: Disposal in accordance with local legal provisions. Empty containers to be disposed of as hazardous waste.

Section 14.0 – Transportation Information

UN No	3082
ERG No	171 EAC
ARD/RID Class	9
IMDG-Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LQUID, N.O.S.
IMDG Code	9 IMDG-Packaging Group III
Marine Pollutant	Yes
Class	Class 9 Miscellaneous Group III
Subsidiary Risks	None

Section 15.0 – Regulatory Information

EEC Hazard Classification 9
Risk Phases Harmful in contact with skin and if swallowed
Irritating to eyes

Harmful: Danger of serious damage to health by prolonged exposure if swallowed.
Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment
Safety Phases Keep out of reach of children
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
After contact with skin, immediately wash with plenty of water and seek medical advice.
Wear suitable protective clothing, gloves and eye/face protection
This material and its container must be disposed of as hazardous waste
Avoid release into environment; refer to special instructions/material safety data sheet
National Legislation National Road Traffic Act 1996 (Act 93 of 1996)
Occupational Health and Safety Act 1993 (Act 85 of 1993)
Hazardous Substances Act 1973 (Act 15 of 1973)

Section 16.0 – Other Information

Disclaimer

The information contained in this document applies to this specic material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

While the information and recommendations in this publication are to the best of our knowledge, information and belief accurate at the date of publication, NOTHING HEREIN IS TO BE CONSTRUED AS A WARRANTY, EXPRESS OR OTHERWISE.

IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF ANY PRODUCT FOR ITS OWN PARTICULAR PURPOSE.

THE PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent upon the manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

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