

Section 1.0 – Identification Of Material And Supplier

Product Name : Lockwell UP115 SR (Resin)
 Other names : Solvent based polyurethane resin
 Recommended use : Tow component PU resin solution for heat proofing Top coat
 Supplier Name : Lockwell Systems Co., Ltd
 199/5 Soi Chongsiri Parkland, T.Bangpleeyai, A.Bangplee, Samutprakarn Thailand.
 Country of Origin : Taiwan
 Emergency Phone : +662 136 3868

Section 2.0 – Hazards Identification



Danger

The harm warns the news : Flammable liquid and vapor
 Harm measure : 1. Sets at the vessel to ventilating the good place
 2. Is far away from the ignition- Forbids the smoking

Section 3.0 – Composition / Information on Ingredients

Ingredients	Weight %	CAS NO.
Polyurethane resin(PU resin)	45~50	---
Toluene	35~40	108-88-3
Ethyl acetate (EtOAc)	20~10	141-78-6
Total	100.00	

Section 4.0 – First Aid Measures

EMERGENCY & FIRST AID PROCEDURES

Inhalation : Remove to fresh air. If not breathing. Give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion : Aspiration hazard .If swallowed. Vomiting may occur spontaneously. But DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent Aspiration into lungs. Never give anything by mouth to an unconscious person. Call a physician immediately.

Eye Contact : Immediately flush eyes with plenty of water for at least 15 minutes. Lifting upper and lower eyelids occasionally. Get medical attention.

Skin Contact : Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Section 5.0 – Fire Fighting Measures

Flash point : 29°C

Autoignition temperature :

Flammable limits in air % by volume :

Extremely Flammable.

Explosion :

Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Vapors can flow along surfaces to distant ignition source and flash back. Contact with strong Oxidizers may cause fire. Sealed containers may rupture when heated. Sensitive to static Discharge.

Fire Extinguishing Media :

Dry chemical, foam or carbon dioxide. Water spray may be used to keep fire exposed Containers cool, dilute spills to nonflammable mixtures. Protect personnel attempting to Stop leak and disperse vapors.

Special Information :

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained Breathing apparatus with full facepiece operated in the pressure demand or other positive surfaces, and all sources of heat and ignition.

Section 6.0 – Accidental Release Measure

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal

Protective equipment as specified in Section 8 Isolate hazard area. Keep unnecessary

And unprotected personnel from entering. Contain and recover liquid when possible.

Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material, and place in a chemical waste container. Do not ignited, use Combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities.

Section 7.0 – Handling & Storage

Protect against physical damage. Store in a cool, dry well-ventilated location. Away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Should be dry draughty place. Separate from incompatibles. Containers should be bonded and grounded for transfers to

Avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type Tools and equipment. Including explosion proof ventilation. Containers of this material may be Hazardous when empty since they retain product residues (vapors, liquid), observe all warnings

And precautions listed for the product.

Section 8.0 – Exposure Controls/ Personal Protection

Ventilation System : A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of recommended Practices. Most recent edition, for details. Use explosion-proof equipment.

- Personal Respirators : If the exposure limit is exceeded. A full face piece respirator with organic vapor cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier. Whichever is lowest. For emergencies or instances where the exposure levels are not known.
Use a full-face piece positive-pressure and oxygen-deficient atmospheres.
- Eye protection : Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.
- Skin protection : Wear impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Butyl rubber is a suitable material for personal protective equipment.

Section 9.0 – Physical & Chemical Properties

Physical state	: liquid
Color	: Grey
Odor	: smell of solvent
Flash Point(°C)	: 29°C
Boiling point	: 80 ~ 153°C
Vapor density	: 2.50
Vapor pressure(mm/Hg)	: 5 mmHg@20°C
PH	: 6.2

Section 10.0 – Stability & Reactivity

- Stability : Stable under ordinary conditions of use and storage.
Hazardous Decomposition Products.
Carbon dioxide and carbon monoxide may form when heated to decomposition.
Hazardous Polymerization : Will not occur.
- Incompatibilities : Oxidizing materials, caustics, amines, ammonia, strong bases, chloroform, chlorosulfonic acid. Oleum, potassium-t-butoxide, heat or flame, hydrogen peroxide, nitric acid. Can attack many plastics, Resin and rubber.
- Conditions to Avoid : Heat, flames, ignition sources and incompatibles.

Section 11.0 – Toxicological Information

- Acute toxicity : LD50 oral, rat : more than 5 mg/kg
Skin and mucous membrane compatibility, rabbit :
Skin 4 hours exposure – very slight irritant
Eyes - very slight irritant

Section 12.0 – Ecological Information

- When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals.

Section 13.0 – Disposal Consideration

Disposal : Dispose in a safe manner in accordance with local/national regulations. Incinerate liquid residues and solids used as spillage absorbents. Dispose only by approved contractors following regulations incinerate disposal of these materials.

Section 14.0 – Transport Information

GGVSee/IMDG Code : 3 UN NO. : 1866 Ems : 3 05
PG : III MPO : NO
GGVSE : Class 3 PG : III RID/ADR : Class 3 PG : III
Warning sign : Hazard no. 30 Substance no. 1866
ADNR : Class 3 PG : III Cat -- ICAO/IATA-DGR : 3 1866 II

Section 15.0 – Regulatory Information

Labelling in accordance with the EEC directives :

Symbol : Xn, hazard description harmful

R 10 : Flammable.

R 20/21 : Harmful by inhalation and in contact with skin

R 43 : May cause sensitization by skin contact.

S 24 : Avoid contact with skin

S 51 : Use only in well-ventilated areas.

The above-mentioned manufacturer's information on the handling of isocyanates is contained in
The safety data sheet for the product.

Section 16.0 – Other Information**Disclaimer**

The information contained in this document applies to this specific 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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Prepared by: Lockwell Systems LLC