



GHS SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **RC-2100**
Product Use/Class: **ADHESIVE**

LORD Japan Inc.

Tokyo Office: Nomura Nishi Shinjuku Bldg. 8F 8-4-2 Nishi-shinjuku Shinjuku-ku Tokyo

Kofu Facility: 811 Nakadate Chuo-shi Yamanashi

Tel Number: +(81)-55-273-4290

Fax: +(81)-55-273-5020

24 Hr Emergency Number:

Sales Division TEL +(81)-3-5338-9011

LORD Corporation

111 LORD Drive

Cary, NC 27511-7923

Telephone: 814 868-3180

Non-Transportation Emergency: 814 763-2345

Chemtrec 24 Hr Transportation Emergency No.

800 424-9300 (Outside Continental U.S. 703 527-3887)

EFFECTIVE DATE: 08/08/2014

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

Flammable liquids Category 2

Acute toxicity Oral Category 4

Acute toxicity Inhalation - Dust and Mist Category 4

Acute toxicity Inhalation - Vapours Category 4

Skin corrosion/irritation Category 2

Serious eye damage/eye irritation Category 2A

Reproductive toxicity Category 2

Specific target organ systemic toxicity (single exposure) Category 3

Specific target organ systemic toxicity (single exposure) Category 3

Specific target organ systemic toxicity (single exposure) Category 1 Central nervous system

Specific target organ systemic toxicity (repeated exposure) Category 1 Central nervous system, Kidney

Aspiration hazard Category 1

Hazardous to the aquatic environment - acute hazard Category 2

Hazardous to the aquatic environment - chronic hazard Category 2

GHS LABEL ELEMENTS:

Symbol(s)



Signal Word

DANGER

Hazard Statements

- Highly flammable liquid and vapor.
- Harmful if swallowed.
- Harmful if inhaled.
- Harmful if inhaled.
- Causes skin irritation.
- Causes serious eye irritation.
- Suspected of damaging fertility or the unborn child.
- May cause harm to breast-fed children.
- May cause drowsiness or dizziness.
- May cause respiratory irritation.
- Causes damage to organs.(Central nervous system)
- Causes damage to organs through prolonged or repeated exposure.(Central nervous system, Kidney)
- May be fatal if swallowed and enters airways.
- Toxic to aquatic life.
- Toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention

- Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- Ground/Bond container and receiving equipment.
- Use explosion-proof electrical/ventilating/lighting equipment.
- Use only non-sparking tools.
- Take precautionary measures against static discharge.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Do not breathe dust/fume/gas/mist/vapors/spray.
- Wash thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.

Response

- In case of fire: refer to section 5 of SDS for extinguishing media.
- Call a POISON CENTER or doctor/physician if you feel unwell.
- IF exposed: Call a POISON CENTER or doctor/physician.
- Specific treatment (see supplemental first aid instructions on this label).
- IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- If skin irritation occurs: Get medical advice/attention.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- Rinse mouth.
- Do NOT induce vomiting.
- Collect spillage.

Storage

- Store in a well-ventilated place. Keep cool.
- Store in a well-ventilated place. Keep container tightly closed.
- Store locked up.

Disposal:

Dispose of contents/container in accordance with waste/disposal laws and regulations of your country or particular locality.

Other Hazards:

This product contains component(s) which have the following warnings; however based on the GHS classification criteria of your country or locale, the product mixture may be outside the respective category(s).

Acute: Vapor harmful; may affect the brain or nervous system causing dizziness, headache or nausea. Possible irritation of the respiratory system can occur causing a variety of symptoms such as dryness of the throat, tightness of the chest, and shortness of breath. May cause central nervous system depression characterized by the following progressive steps: headache, dizziness, staggering gait, confusion, unconsciousness or coma. Harmful if absorbed through skin. Harmful if swallowed. Ingestion is not an expected route of entry in industrial or commercial uses.

Chronic: Prolonged or repeated contact may result in dermatitis. Repeated or prolonged solvent overexposure may result in permanent central nervous system damage. The proprietary catalyst contained in this product has been reported by the supplier to have caused cancer in laboratory animals. Repeated exposure to smoke or fumes generated by heating this product may lead to respiratory sensitization (asthma) in susceptible individuals.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight % Less Than
Toluene	108-88-3	95.0 %
Organotin catalyst	PROPRIETARY	5.0 %

4. FIRST AID MEASURES

FIRST AID - EYE CONTACT: Flush eyes immediately with large amount of water for at least 15 minutes holding eyelids open while flushing. Get prompt medical attention.

FIRST AID - SKIN CONTACT: Flush contaminated skin with large amounts of water while removing contaminated clothing. Wash affected skin areas with soap and water. Get medical attention if symptoms occur.

FIRST AID - INHALATION: Move person to fresh air. Restore and support continued breathing. If breathing is difficult, give oxygen. Get immediate medical attention.

FIRST AID - INGESTION: If swallowed, do not induce vomiting. Call a physician or poison control center immediately for further instructions. Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing.

5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam, Water Fog

UNSUITABLE EXTINGUISHING MEDIA: High volume water jet

SPECIFIC HAZARDS POSSIBLY ARISING FROM THE CHEMICAL: Flammable liquid and vapor. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, open flame, and other sources of ignition. Closed containers may rupture when exposed to extreme heat. Use water spray to keep fire exposed containers cool. During a fire, irritating and/or toxic gases and particulate may be generated by thermal decomposition or combustion.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS: Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA). Water spray may be ineffective. If water is used, fog nozzles are preferable.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES: Remove all sources of ignition (flame, hot surfaces, and electrical, static or frictional sparks). Avoid contact. Avoid breathing vapors. Use self-contained breathing equipment.

ENVIRONMENTAL PRECAUTIONS: Do not contaminate bodies of water, waterways, or ditches, with chemical or used container.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANUP: Keep non-essential personnel a safe distance away from the spill area. Notify appropriate authorities if necessary. Avoid contact. Before attempting cleanup, refer to hazard caution information in other sections of the MSDS form. Contain and remove with inert absorbent material.

7. HANDLING AND STORAGE

HANDLING: Keep closure tight and container upright to prevent leakage. Ground and bond containers when transferring material. Avoid skin and eye contact. Wash thoroughly after handling. Avoid breathing of vapor or spray mists. Do not handle until all safety precautions have been read and understood. Empty containers should not be re-used. Use with adequate ventilation. Because empty containers may retain product residue and flammable vapors, keep away from heat, sparks and flame; do not cut, puncture or weld on or near the empty container. Do not smoke where this product is used or stored.

STORAGE: Do not store or use near heat, sparks, or open flame. Refer to OSHA 29CFR Part 1910.106 "Flammable and Combustible Liquids" for specific storage requirements. Store only in well-ventilated areas. Do not puncture, drag, or slide container. Keep container closed when not in use.

INCOMPATIBILITY: Strong acids Peroxides and oxidizing agents. Amines and bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT EXPOSURE LIMIT

<u>Chemical Name</u>	<u>ACGIH TLV-TWA</u>	<u>ACGIH TLV-STEL</u>	<u>OSHA PEL-TWA</u>	<u>OSHA PEL-CEILING</u>	<u>Skin</u>
Toluene	20 ppm	N.E.	200 ppm	300 ppm	N.A.
Organotin catalyst	0.1 mg/m ³	0.2 mg/m ³	0.1 mg/m ³	N.E.	S

N.A. - Not Applicable, N.E. - Not Established, S - Skin Designation

Engineering controls: Sufficient ventilation in pattern and volume should be provided in order to maintain air contaminant levels below recommended exposure limits. Caution: Solvent vapors are heavier than air and collect in lower levels of the work area. Sufficient ventilation (using explosion-proof equipment) should be provided to prevent flammable vapor/air mixtures from accumulating.

PERSONAL PROTECTION MEASURES/EQUIPMENT:

RESPIRATORY PROTECTION: Use a NIOSH approved chemical/mechanical filter respirator designed to remove a combination of particulates and organic vapor if occupational limits are exceeded. For emergency

situations, confined space use, or other conditions where exposure limits may be greatly exceeded, use an approved air-supplied respirator. Observe OSHA regulations (29CFR 1910.134) for respirator use.

SKIN PROTECTION: Use neoprene, nitrile, or rubber gloves to prevent skin contact.

EYE PROTECTION: Use safety eyewear including safety glasses with side shields and chemical goggles where splashing may occur.

OTHER PROTECTIVE EQUIPMENT: Use disposable or impervious clothing if work clothing contamination is likely. Remove and wash contaminated clothing before reuse.

HYGIENIC PRACTICES: Wash hands before eating, smoking, or using toilet facility. Do not smoke in any chemical handling or storage area. Food or beverages should not be consumed anywhere this product is handled or stored. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical values, not to be used for specification purposes.

ODOR:	Solvent	VAPOR PRESSURE:	N.D.
APPEARANCE:	White to clear	VAPOR DENSITY:	Heavier than Air
PHYSICAL STATE:	Liquid	LOWER EXPLOSIVE LIMIT:	1.2 % (V)
FLASH POINT:	39 °F, 3 °C closed cup	UPPER EXPLOSIVE LIMIT:	7 % (V)
BOILING RANGE:	110 - 111 °C	EVAPORATION RATE:	Slower than n-butyl-acetate
AUTOIGNITION TEMPERATURE:	N.D.	DENSITY:	0.87 g/cm ³
DECOMPOSITION TEMPERATURE:	N.D.	VISCOSITY, DYNAMIC:	N.D.
ODOR THRESHOLD:	N.D.	VISCOSITY, KINEMATIC:	N.D.
SOLUBILITY IN H₂O:	Insoluble	VOLATILE BY WEIGHT:	92.84 %
pH:	N.A.	VOLATILE BY VOLUME:	94.30 %
FREEZE POINT:	N.D.	VOC CALCULATED:	6.84 lb/gal, 819 g/l
COEFFICIENT OF WATER/OIL DISTRIBUTION:	N.D.		

LEGEND: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

10. STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur under normal conditions.

STABILITY: Product is stable under normal storage conditions.

CONDITIONS TO AVOID: High temperatures. Sources of ignition.; Avoid moisture.

INCOMPATIBILITY: Strong acids; Peroxides and oxidizing agents.; Amines and bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, Oxides of tin, Toxic organic vapors and fumes

11. TOXICOLOGICAL INFORMATION

EXPOSURE PATH: Refer to section 2 of this SDS.

Product: RC-2100, Effective Date: 08/08/2014

SYMPTOMS: Refer to section 2 of this SDS.

TOXICITY MEASURES:

<u>Chemical Name</u>	<u>LD50/LC50</u>
Toluene	Oral LD50: Rat 2,600 mg/kg Dermal LD50: Rabbit 12,000 mg/kg Inhalation LC50: Rat 12.5 mg/l /4 h
Organotin catalyst	Oral LD50: Rat 32 mg/kg Dermal LD50: Rabbit 2,318 mg/kg

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

<u>Chemical Name</u>	<u>Ecotoxicity</u>
Toluene	<u>Fish:</u> Pimephales promelas 15.22 - 19.05 mg/196 h flow-through Pimephales promelas 12.6 mg/196 h Static Oncorhynchus mykiss 5.89 - 7.81 mg/196 h flow-through Oncorhynchus mykiss 14.1 - 17.16 mg/196 h Static Oncorhynchus mykiss 5.8 mg/196 h semi-static Lepomis macrochirus 11.0 - 15.0 mg/196 h Static Oryzias latipes 54 mg/196 h Static Poecilia reticulata 28.2 mg/196 h semi-static Poecilia reticulata 50.87 - 70.34 mg/196 h Static <u>Invertebrates:</u> Daphnia magna 5.46 - 9.83 mg/148 h Static Daphnia magna 11.5 mg/148 h <u>Plants:</u> Pseudokirchneriella subcapitata > 433 mg/196 h Pseudokirchneriella subcapitata 12.5 mg/172 h Static
Organotin catalyst	N.D.

PERSISTENCE AND DEGRADABILITY: Not determined for this product.

BIOACCUMULATIVE: Not determined for this product.

MOBILITY IN SOIL: Not determined for this product.

OTHER ADVERSE EFFECTS: Not determined for this product.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of contents/container in accordance with waste/disposal laws and regulations of your country or particular locality.

14. TRANSPORT INFORMATION

IATA Cargo

PROPER SHIPPING NAME: Adhesives
DOT HAZARD CLASS: 3
HAZARD CLASS: None
UN-NUMBER: 1133
PACKING GROUP: II

Product: RC-2100, Effective Date: 08/08/2014

EMS: 3L

IMDG

PROPER SHIPPING NAME: Adhesives
DOT HAZARD CLASS: 3
HAZARD CLASS: None
UN-NUMBER: 1133
PACKING GROUP: II
EMS: F-E

The listed transportation classification applies to IATA Cargo and IMDG non-bulk shipments. It does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors for your country or particular locality. For the most accurate shipping information, refer to your transportation/compliance department.

15. REGULATORY INFORMATION

INVENTORIES

Australia Inventory of Existing Chemical Substances (AICS)	YES
Chinese Inventory of Existing Chemical Substances (IECSC)	YES
Japan Existing and New Chemical Substances (ENCS)	YES
Korean Inventory of Existing and Evaluated Chemical Substances (KECI)	YES
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	NO
US Toxic Substances Control Act (TSCA)	YES

16. OTHER INFORMATION

HMIS RATINGS - HEALTH: 3* **FLAMMABILITY:** 3 **PHYSICAL HAZARD:** 0
* - Indicates a chronic hazard; see Section 3

Revision: Section 1, Section 5

Effective Date: 08/08/2014

DISCLAIMER

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.