



## GHS SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **RC-1028K**  
Product Use/Class: **ADHESIVE**

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**EFFECTIVE DATE:** 07/15/2014

### 2. HAZARDS IDENTIFICATION

#### GHS CLASSIFICATION:

Flammable liquids Category 2  
Acute toxicity Oral Category 5  
Acute toxicity Inhalation - Dust and Mist Category 3 - 86.7% of the mixture consists of ingredient(s) of unknown toxicity.  
Acute toxicity Inhalation - Vapours Category 3 - 86.7% of the mixture consists of ingredient(s) of unknown toxicity.  
Germ cell mutagenicity Category 1B  
Reproductive toxicity Category 1A  
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 2 Respiratory system, Lungs  
Specific target organ systemic toxicity (single exposure) Category 1 Central nervous system  
Specific target organ systemic toxicity (repeated exposure) Category 2 Central nervous system, Nervous system  
Specific target organ systemic toxicity (repeated exposure) Category 1 Liver  
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**

DANGERDANGER

**Hazard Statements**

- Highly flammable liquid and vapor.
- May be harmful if swallowed.
- Toxic if inhaled.
- Toxic if inhaled.
- May cause genetic defects.
- May damage fertility or the unborn child.
- May cause drowsiness or dizziness.
- May cause respiratory irritation.
- May cause damage to organs.(Respiratory system, Lungs)
- Causes damage to organs.(Central nervous system)
- May cause damage to organs through prolonged or repeated exposure.(Central nervous system, Nervous system)
- Causes damage to organs through prolonged or repeated exposure.(Liver)
- 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.
- Keep container tightly closed.
- 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.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Use personal protective equipment as required.
- Wear respiratory 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.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.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Use personal protective equipment as required.

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**

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
In case of fire: refer to section 5 of SDS for extinguishing media.  
Immediately call a POISON CENTER or doctor/physician.  
Specific treatment is urgent (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: Wash with plenty of soap and water.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continue rinsing.  
Take off contaminated clothing and wash before reuse.  
Collect spillage. In case of fire: refer to section 5 of SDS for extinguishing media.  
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.  
Collect spillage.

**Storage**

Store in a well-ventilated place. Keep cool.  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up. 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. 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. This product contains Methylcyclohexane, which may cause breathing difficulty, headache, drowsiness, dizziness, loss of coordination, kidney and liver damage, diarrhea, and convulsions. This product contains an ingredient where aspiration into the lungs may occur during ingestion or vomiting causing tissue damage or lung injury. Harmful if inhaled or 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. Repeated exposure to n-butyl acetate caused fetotoxic and developmental effects in laboratory animals. ACGIH considers Ethyl alcohol to be an A3 carcinogen (confirmed animal carcinogen with unknown relevance in humans). May cause liver or kidney damage.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS Number	Weight % Less Than
methylcyclohexane	108-87-2	85.0 %
N-Butyl acetate	123-86-4	10.0 %

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Ethyl alcohol	64-17-5	10.0 %
Polyamide resin	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:** Water

**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 and non-sparking tools.

#### 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 oxidizers, acids, bases, water.

## 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>
methylcyclohexane	400 ppm	N.E.	2,000 mg/m3 500 ppm	N.E.	N.A.
N-Butyl acetate	150 ppm	200 ppm	710 mg/m3 150 ppm	N.E.	N.A.
Ethyl alcohol	N.E.	1,000 ppm	1,900 mg/m3 1,000 ppm	N.E.	N.A.
Polyamide resin	N.E.	N.E.	N.E.	N.E.	N.A.

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.

<b>ODOR:</b>	Solvent	<b>VAPOR PRESSURE:</b>	N.D.
<b>APPEARANCE:</b>	Yellow to brown	<b>VAPOR DENSITY:</b>	Heavier than Air
<b>PHYSICAL STATE:</b>	Liquid	<b>LOWER EXPLOSIVE LIMIT:</b>	1.2 %(V)
<b>FLASH POINT:</b>	24 °F, -4 °C closed cup	<b>UPPER EXPLOSIVE LIMIT:</b>	19 %(V)
<b>BOILING RANGE:</b>	79 - 126 °C	<b>EVAPORATION RATE:</b>	Faster than n-butyl-acetate.
<b>AUTOIGNITION TEMPERATURE:</b>	N.D.	<b>DENSITY:</b>	0.78 g/cm <sup>3</sup>
<b>DECOMPOSITION TEMPERATURE:</b>	N.D.	<b>VISCOSITY, DYNAMIC:</b>	≥100 mPa.s @
<b>ODOR THRESHOLD:</b>	N.D.	<b>VISCOSITY, KINEMATIC:</b>	≥128 mm <sup>2</sup> /s @ 25 °C
<b>SOLUBILITY IN H<sub>2</sub>O:</b>	Insoluble	<b>VOLATILE BY WEIGHT:</b>	96.27 %
<b>pH:</b>	N.A.	<b>VOLATILE BY VOLUME:</b>	97.34 %
<b>FREEZE POINT:</b>	N.D.	<b>VOC CALCULATED:</b>	6.31 lb/gal, 756 g/l
<b>COEFFICIENT OF WATER/OIL DISTRIBUTION:</b>	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.

**INCOMPATIBILITY:** Strong oxidizers, acids, bases, water.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon dioxide, carbon monoxide, chlorine, hydrogen chloride, Phosgene

## 11. TOXICOLOGICAL INFORMATION

**EXPOSURE PATH:** Refer to section 2 of this SDS.

**SYMPTOMS:** Refer to section 2 of this SDS.

**TOXICITY MEASURES:**

<b>Chemical Name</b>	<b>LD50/LC50</b>
methylcyclohexane	Oral LD50: Rat > 3,200 mg/kg
N-Butyl acetate	Oral LD50: Rat 10,768 mg/kg Dermal LD50: Rabbit > 17,600 mg/kg Inhalation LC50: Rat 390 ppm/4 h
Ethyl alcohol	Oral LD50: Rat 7,060 mg/kg Inhalation LC50: Rat 124.7 mg/l /4 h
Polyamide resin	N.D.

## 12. ECOLOGICAL INFORMATION

**ECOTOXICITY:**

<b>Chemical Name</b>	<b>Ecotoxicity</b>
methylcyclohexane	N.D.
N-Butyl acetate	<u>Fish:</u> Lepomis macrochirus 100 mg/196 h Static Pimephales promelas 17 - 19 mg/196 h flow-through <u>Plants:</u> Desmodemus subspicatus 674.7 mg/172 h
Ethyl alcohol	<u>Fish:</u> Pimephales promelas > 100 mg/196 h Static Pimephales promelas 13,400 - 15,100 mg/196 h flow-through <u>Invertebrates:</u> Daphnia magna 9,268 - 14,221 mg/148 h Daphnia magna 2 mg/148 h Static
Polyamide resin	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.

<b>13. DISPOSAL CONSIDERATIONS</b>
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**DISPOSAL METHOD:** Dispose of contents/container in accordance with waste/disposal laws and regulations of your country or particular locality. Dispose of contents/container in accordance with waste/disposal laws and regulations of your country or particular locality.

<b>14. TRANSPORT INFORMATION</b>
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**IATA Cargo**

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

<b>15. REGULATORY INFORMATION</b>
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**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)	NO
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	YES
US Toxic Substances Control Act (TSCA)	YES

**16. OTHER INFORMATION**

**HMIS RATINGS** - HEALTH: 2\* FLAMMABILITY: 3 PHYSICAL HAZARD: 0

\* - Indicates a chronic hazard; see Section 3

**Revision:** Section 1

**Effective Date:** 07/15/2014

**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.