



# SAFETY DATA SHEET

in accordance with 29 CFR 1910.1200 and ANSI standard Z400.1-2010

Revision date: Aug/5/2016

Version: 2

Language: en-US

Date of print: Aug/11/2016

## RK-Activator

Material number 105622

Page: 1 of 11

## 1. Product and company identification

### Product identifier

Trade name: RK-Activator

### Relevant identified uses of the substance or mixture and uses advised against

General use: Acrylate-activator. Hardener for 2 component adhesive.  
Reserved for industrial and professional use.

### Details of the supplier of the safety data sheet

Company name: WEICON Inc.  
Street/POB-No.: 20 Steckle Place, Unit 20  
Postal Code, city: Kitchener, Ontario N2E 2C3, CA  
WWW: www.weicon.ca  
E-mail: info@weicon.ca  
Telephone: +1-519-896-5252  
Telefax: +1-519-896-5254  
Dept. responsible for information:  
Product-Safety-Department  
Telephone: +49(0)251 / 9322 - 0, Email: msds@weicon.de

### Emergency phone number

**EMERGENCY CONTACT – USA (24h): Tel: ++1 202 464 2554**

**Transport:**

**TRANSPORT EMERGENCY CONTACT - USA (24h): Tel: ++1 202 464 2554**

## 2. Hazards identification

### Emergency overview

Appearance: Physical state at 68 °F and 101.3 kPa: liquid  
Color: light yellow

Odor: slightly perceptible

Classification: Flammable Liquid - Category 2; Eye Irritation - Category 2A; Sensitization - skin - Category 1; Reproductive toxicant - Category 2; Specific Target Organ Toxicity (Single Exposure) - Category 3; Aquatic toxicity - acute - Category 1;

Hazard symbols:



Signal word:

**Danger**

Hazard statements: Highly flammable liquid and vapor.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
May cause drowsiness or dizziness.  
Suspected of damaging fertility.  
Very toxic to aquatic life.



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Precautionary statements: Obtain special instructions before use.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Take action to prevent static discharges.  
Avoid breathing vapors/spray.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
IF exposed or concerned: Get medical advice/attention.  
Specific treatment (see ' First aid ' on this label).  
In case of fire: Use water spray, dry powder, foam or carbon dioxide for extinction.  
Collect spillage.  
Dispose of contents/container to hazardous or special waste collection point.

### Regulatory status

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and SIMDUT in Canada.

### Hazards not otherwise classified

Potentially explosive mixtures may form if adequate ventilation is not provided.  
Inhaling can lead to irritations of the respiratory tract and mucous membrane.  
Higher doses may have a narcotic effect.  
see section 11: Toxicological information

## 3. Composition / Information on ingredients

Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 78-93-3	Butanone	60 - 100 %	Flammable Liquid - Category 2. Eye Irritation - Category 2A. Specific Target Organ Toxicity (Single Exposure) - Category 3.
CAS 94-36-0	Dibenzoyl peroxide	7 - 13 %	Organic Peroxide - Category B. Eye Irritation - Category 2A. Sensitization - skin - Category 1. Aquatic toxicity - acute - Category 1.
CAS 84-61-7	Dicyclohexyl phthalate	7 - 13 %	Sensitization - skin - Category 1. Reproductive toxicant - Category 2. Aquatic toxicity - chronic - Category 3.

## 4. First aid measures

General information: Take off immediately all contaminated clothing and wash it before reuse. First aider: Pay attention to self-protection!

In case of inhalation: Move victim to fresh air; if necessary, provide artificial respiration or oxygen. Immediately get medical attention.

Following skin contact: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Consult a doctor if skin irritation persists.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist.



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After swallowing: Do not induce vomiting. Rinse mouth with water.  
Drink large quantities of water. Never give anything by mouth to an unconscious person.  
Immediately get medical attention.

### Most important symptoms/effects, acute and delayed

Causes serious eye irritation. May cause an allergic skin reaction.  
May cause drowsiness or dizziness. Suspected of damaging fertility.

### Information to physician

Treat symptomatically. Symptoms of poisoning may develop several hours following exposure. Victim should be under medical observation for at least 48 hours after exposure.

## 5. Fire fighting measures

Flash point/flash point range:

24.8 °F (c.c.)

Auto-ignition temperature: > 932 °F

Suitable extinguishing media:

Water fog, foam, dry chemical powder carbon dioxide

Extinguishing media which must not be used for safety reasons:

High power water jet

### Specific hazards arising from the chemical

Highly flammable liquid and vapor. Vapors form explosive mixtures with air. Risk of bursting/explosion.

The product is oxidizing when dried.

Hazardous vapors may form during fires. In case of fire may be liberated: carbon monoxide and carbon dioxide.

Protective equipment and precautions for firefighters:

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing. In case of fire and/or explosion do not breathe fumes.

Additional information:

Cool exposed containers with water spray. Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

## 6. Accidental release measures

Personal precautions:

Provide adequate ventilation. In case of leakage, eliminate all ignition sources. Avoid contact with skin and eyes.

Wear appropriate protective equipment. Keep unprotected people away.

Use a breathing protection against vapors/aerosol. Do not breathe vapor or spray.

Environmental precautions:

Do not allow to enter into ground-water, surface water or drains. Do not allow to enter into soil/subsoil. In case of release, notify competent authorities.

Methods for clean-up:

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).

Beware of reignition. Use only explosion-proof equipment. Thoroughly clean surrounding area.

In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out).

Additional information:

The product is oxidizing when dried. Use explosion-proof equipment and non-sparking tools/utensils.



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## 7. Handling and storage

### Handling

Advices on safe handling: Provide good ventilation and/or an exhaust system in the work area. Handle and open container with care. Do not breathe vapor or spray. Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation. Pregnant women should strictly avoid inhalation of the product or skin contact with the product. Wear appropriate protective equipment. Take off immediately all contaminated clothing and wash it before reuse. Avoid contact with skin and eyes. When using do not eat, drink or smoke. Wash hands before breaks and after work.

Precautions against fire and explosion:

Take precautionary measures against static discharges. Keep away from sources of ignition - No smoking. Use only explosion-protected equipment/instruments. Do not weld. In partially filled containers explosive mixtures may form.

### Storage

Requirements for storerooms and containers:

Keep container tightly closed and in a well-ventilated place. Keep container dry. Keep only in the original container. Protect from light and heat. Store at temperatures between 35.6 °F and 64.4 °F. Store containers in upright position. Explosion protection required. Handle empty containers with care. Incineration may cause explosion.

Hints on joint storage:

Do not store together with combustible or self-igniting materials or any highly flammable solids. Do not store together with strong oxidizing agents. Keep away from food, drink and animal feedingstuffs.

Further details:

The product is oxidizing when dried.

## 8. Exposure controls / personal protection

### Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
78-93-3	Butanone	USA: ACGIH: STEL	885 mg/m <sup>3</sup> ; 300 ppm
		USA: ACGIH: TWA	590 mg/m <sup>3</sup> ; 200 ppm
		USA: NIOSH: STEL	885 mg/m <sup>3</sup> ; 300 ppm
		USA: NIOSH: TWA	590 mg/m <sup>3</sup> ; 200 ppm
		USA: OSHA: TWA	590 mg/m <sup>3</sup> ; 200 ppm
94-36-0	Dibenzoyl peroxide	USA: ACGIH: TWA	5 mg/m <sup>3</sup>
		USA: NIOSH: TWA	5 mg/m <sup>3</sup>
		USA: OSHA: TWA	5 mg/m <sup>3</sup>

Biological limit values:

CAS No.	Designation	Type	Limit value	Parameter	Sampling
78-93-3	Butanone	USA: ACGIH-BEI, urine	2 mg/L	MEK	end of exposure or end of shift

### Engineering controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment. Explosion protection required. See also information in chapter 7, section storage.



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### Personal protection equipment (PPE)

- Eye/face protection** Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.
- Skin protection** Flame retardant, antistatic and chemical resistant protective clothing.  
Protective gloves according to OSHA Standard - 29 CFR: 1910.138.  
Glove material: Butyl caoutchouc (butyl rubber), ethylene vinyl alcohol laminate (EVAL)  
Layer thickness: 0.7 mm  
Breakthrough time: >480 min  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
- Respiratory protection:** Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded.  
The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product.
- General hygiene considerations:**  
Use non-sparking tools. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.  
Do not breathe vapor or spray. Avoid contact with skin and eyes.  
Pregnant women should strictly avoid inhalation of the product or skin contact with the product.  
Work place should be equipped with a shower and an eye rinsing apparatus.  
Take off immediately all contaminated clothing and wash it before reuse.  
When using do not eat, drink or smoke. Wash hands before breaks and after work.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

- Appearance:** Physical state at 68 °F and 101.3 kPa: liquid  
Color: light yellow
- Odor:** slightly perceptible
- Odor threshold:** not determined
- pH value:** not determined
- Melting point/freezing point:** <= 32 °F
- Initial boiling point and boiling range:** > 167 °F
- Flash point/flash point range:** 24.8 °F (c.c.)
- Evaporation rate:** not determined
- Flammability:** Highly flammable liquid and vapor.
- Explosion limits:** LEL (Lower Explosion Limit): 1.80 Vol-%  
UEL (Upper Explosive Limit): 11.50 Vol-%
- Vapor pressure:** at 68 °F: approx. 10 kPa
- Vapor density:** No data available
- Density:** at 77 °F: 0.87 g/mL
- Water solubility:** at 68 °F: partially soluble
- Partition coefficient: n-octanol/water:** not determined
- Auto-ignition temperature:** > 932 °F
- Thermal decomposition:** > 122 °F
- Viscosity, dynamic:** not determined
- Viscosity, kinematic:** at 104 °F: not determined
- Explosive properties:** Vapors may form explosive mixtures with air.



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### 10. Stability and reactivity

- Reactivity: Highly flammable liquid and vapor.  
Vapors may form explosive mixtures with air.
- Chemical stability: Stable under recommended storage conditions.
- Possibility of hazardous reactions  
Do not expose to high temperature. Danger of bursting and explosion.  
May react violently with combustible materials.
- Conditions to avoid: Keep away from heat sources, sparks and open flames.  
Keep away from combustible material. Protect against direct sunlight.
- Incompatible materials: Strong oxidizing agents
- Hazardous decomposition products:  
Hazardous vapors may form during fires. In case of fire may be liberated: carbon monoxide and carbon dioxide.
- Thermal decomposition: > 122 °F

### 11. Toxicological information

#### Toxicological tests

- Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.
- Acute toxicity (oral): Lack of data.
- Acute toxicity (dermal): Lack of data.
- Acute toxicity (inhalative): Lack of data.
- Skin corrosion/irritation: Lack of data.
- Eye damage/irritation: Eye Irritation - Category 2A = Causes serious eye irritation.
- Sensitisation to the respiratory tract: Lack of data.
- Skin sensitisation: Sensitization - skin - Category 1 = May cause an allergic skin reaction.
- Germ cell mutagenicity/Genotoxicity: Lack of data.
- Carcinogenicity: Lack of data.
- Reproductive toxicity: Reproductive toxicant - Category 2 = Suspected of damaging fertility.
- Effects on or via lactation: Lack of data.
- Specific target organ toxicity (single exposure): Specific Target Organ Toxicity (Single Exposure) - Category 3 = May cause drowsiness or dizziness.
- Specific target organ toxicity (repeated exposure): Lack of data.
- Aspiration hazard: Lack of data.



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Other information: Information about Butanone:  
LD50 Rat, oral: 2193 mg/kg  
LD50 Rabbit, dermal: >10 mg/kg  
LC50 Rat, inhalative, vapor: 34.5 mg/L  
Information about Dibenzoyl peroxide:  
LD50 Rat, oral: >5000 mg/kg  
LD50 Rat, inhalative, Dusts and mist: > 24.3 mg/L/4h  
Information about Dicyclohexyl phthalate:  
LD50 Rat, oral: >2000 mg/kg  
LD50 Rat, dermal: > 2000 mg/kg  
For carcinogenic effects:  
Dibenzoyl peroxide:  
IARC Rating: Group 3  
OSHA Carcinogen: not listed  
NTP Rating: not listed

### Symptoms

Prolonged/repetitive skin contact may cause skin defatting or dermatitis.  
Prolonged exposure to vapors may have narcotic effect and cause headache.  
Unconsciousness, Nausea, vomiting.

## 12. Ecological information

### Ecotoxicity

Aquatic toxicity: Very toxic to aquatic life.  
Information about Butanone:  
Fish toxicity:  
LC50: 2993 mg/L/96h (OECD 203)  
Daphnia toxicity:  
EC50 Daphnia magna (Big water flea): 308 mg/L/48h (OECD 202)  
Algae toxicity:  
EC50: 1888 mg/L/48h (OECD 201)  
Information about Dibenzoyl peroxide:  
Algae toxicity:  
EC50: 0.0422 mg/L/72h (OECD 201)  
Bacteria toxicity: EC50: 35 mg/L (OECD 209)  
Daphnia toxicity:  
EC50 Daphnia magna (Big water flea): 0.11 mg/L /48 h (OECD 202)  
Fish toxicity:  
LC50: 0.06 mg/L /96 h (OECD 203)  
Information about Dicyclohexyl phthalate:  
Algae toxicity:  
EC50: > 2 mg/L/72h (OECD 201)  
Bacteria toxicity: EC50 Bacteria: >100 mg/L/3h (OECD 209)  
Daphnia toxicity:  
EC50 Daphnia magna (Big water flea): >2 mg/L /48 h (OECD 202)  
Fish toxicity: LC50 > 2 mg/L/96h (OECD 203).

### Mobility in soil

No data available



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### Persistence and degradability

Further details: Information about Butanone: 98% / 28 d (OECD 301 D). Product is readily biodegradable.  
Information about Dibenzoyl peroxide: 68% / 28 d (OECD 301 D). Product is biodegradable.  
Information about Dicyclohexyl phthalate: 68.5% / 28 d. Product is biodegradable.

### Additional ecological information

Volatile organic compounds (VOC):

0 % by weight = 0 g/L

General information: Do not allow to enter into ground-water, surface water or drains. Do not allow uncontrolled discharge of product into the environment.

## 13. Disposal considerations

### Product

Recommendation: Dispose of waste according to applicable legislation.

### Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation. Handle contaminated packages in the same way as the substance itself. Handle empty containers with care. Incineration may cause explosion.

## 14. Transport information

### USA: Department of Transportation (DOT)

Identification number: UN1263  
Proper shipping name: UN 1263, Paint  
Hazard class or Division: 3  
Packing Group: II  
Labels: 3  
Special provisions: 149, 367, B52, IB2, T4, TP1, TP8, TP28  
Packaging – Exceptions: 150  
Packaging – Non-bulk: 173  
Packaging – Bulk: 242  
Quantity limitations – Passenger aircraft / rail: 5 L  
Quantity limitations – Cargo only: 60 L  
Vessel stowage – Location: B







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### Sea transport (IMDG)

UN number: UN 1263  
Proper shipping name: UN 1263, Paint  
Class or division, Subsidiary risk: Class 3, Subrisk-  
Packing Group: II  
EmS: F-E, S-E  
Special provisions: 163, 367  
Limited quantities: 5 L  
Excepted quantities: E2  
Contaminated packaging - Instructions: P001  
Contaminated packaging - Provisions: PP1  
IBC - Instructions: IBC02  
IBC - Provisions: -  
Tank instructions - IMO: -  
Tank instructions - UN: T4  
Tank instructions - Provisions: TP1, TP8, TP28  
Stowage and handling: Category B.  
Properties and observations: Miscibility with water depends upon the composition.  
Marine pollutant: yes  
Segregation group: none

### Air transport (IATA)

UN/ID number: UN 1263  
Proper shipping name: UN 1263, Paint  
Class or division, Subsidiary risk: Class 3  
Packing Group: II  
Hazard label: Flamm. liquid  
Excepted Quantity Code: E2  
Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y341 - Max. Net Qty/Pkg. 1 L  
Passenger and Cargo Aircraft: Pack.Instr. 353 - Max. Net Qty/Pkg. 5 L  
Cargo Aircraft only: Pack.Instr. 364 - Max. Net Qty/Pkg. 60 L  
Special provisions: A3 A72 A192  
Emergency Response Guide-Code (ERG): 3L



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### 15. Regulatory information

#### National regulations - U.S. Federal Regulations

Butanone:	TSCA Inventory: listed TSCA HPVC: not listed Other Environmental Laws: CERCLA: RQ 5000 lbs. RCRA Hazardous Wastes: Code U159 RCRA Groundwater Monitoring: Methods 8015, 8240 / PQL 10, 100 NIOSH Recommendations: Occupational Health Guideline: 0069*
Dibenzoyl peroxide:	TSCA Inventory: listed TSCA HPVC: not listed Carcinogen Status: IARC Rating: Group 3 OSHA Carcinogen: not listed NTP Rating: not listed Other Environmental Laws: SARA Title III Section 313, Toxic Release: Conc. 1.0% / Threshold Standard NIOSH Recommendations: Occupational Health Guideline: 0052 OSHA Process Safety Management: Threshold 7500 lbs.
Dicyclohexyl phthalate:	TSCA Inventory: listed TSCA HPVC: not listed TSCA: listed

#### National regulations - U.S. State Regulations

Butanone:	Delaware Air Quality Management List: DRQ: 5000 - RQ State: Federal Regulations Apply Idaho Air Pollutant List: Title 585/Title 586: - Massachusetts Haz. Substance codes: 2,4,5,6 F8 F9 Minnesota Haz. Substance: Codes: ANO - Ratings: 9.7 - Status: Air Pollutant Title III. TRI. New Jersey RTK Hazardous Substance: DOT: 1193 - Sub No.: 1258 - TPQ: - New York List of Hazardous Substances: RQ-Air: 5000 - RQ-Land: 1 - Note: No Note Associated with this chemical. Pennsylvania Haz. Substance code: E Washington Air Contaminant: TWA: 200 ppm - 590 mg - STEL: 300 ppm - 885 mg
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#### National regulations - Great Britain

Hazchem-Code: •3YE

### 16. Other information

Text for labeling: Contains 60 - 100 % Butanone, 7 - 13 % Dibenzoyl peroxide, 7 - 13 % Dicyclohexyl phthalate. Safety data sheet available on request.



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Hazard rating systems:



NFPA Hazard Rating:

Health: 3 (Serious)

Fire: 3 (Serious)

Reactivity: 1 (Slight)

HMIS Version III Rating:

Health: 3 (Serious) - Chronic effects

Flammability: 3 (Serious)

Physical Hazard: 1 (Slight)

Personal Protection: X = Consult your supervisor

HEALTH	*	3
FLAMMABILITY		3
PHYSICAL HAZARD		1
		X

Reason of change:

Changes in section 1: General revision

Date of first version:

Feb/2/2016

### Department issuing data sheet

Contact person:

see section 1: Dept. responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.