

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/16/2009

Reviewed on 02/16/2009

1 Identification of substance

- **Product details**
- **Trade name:** Rolmark Solvent
- **Article number:** RMS-G, RMS-Q, 5A133
- **Application of the substance / the preparation** Cleaner solvent
- **Distributor:**
Uline
2200 S. Lakeside Dr.
Waukegan, IL 60085
Phone: 847-473-3000
- **Emergency information:**
Chemtrec 800-424-9300
International 703-527-3887

2 Composition/Data on components

- **Chemical characterization:**
- **CAS No. Description**
123-42-2 4-hydroxy-4-methylpentan-2-one
- **Identification number(s)**
- **EINECS Number:** 204-626-7
- **Index number:** 603-016-00-1

3 Hazards identification

- **Hazard description:**



Xi Irritant

- **Information pertaining to particular dangers for man and environment:**
R 36 Irritating to eyes.
- **Potential Chronic Health Effects**
Prolonged or repeated exposure of vapors, spray, or material may cause diseases of the lungs. Reports have associated repeated overexposure to solvents with brain and nervous system damage. Intentional misuse of this product may be harmful or fatal.
- **Target Organs**
Overexposure to this material or its components has been suggested as a cause of the following effects in laboratory animals and/or humans, and may aggravate preexisting disorders of these organs in humans: Anemia, Blood disorders, Brain damage, Cardiac function, eye, liver, lung, menstrual and fertility, skin, respiratory, Central Nervous System
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 2
Reactivity = 0

(Contd. on page 2)

USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/16/2009

Reviewed on 02/16/2009

Trade name: **Rolmark Solvent**

(Contd. of page 1)

· **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	2	Fire = 2
REACTIVITY	0	Reactivity = 0

· **GHS label elements**



Warning

2.6/3 - Flammable liquid and vapour.



Warning

3.3/2A - Causes serious eye irritation.

· **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.

Wash thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

· **Response:**

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists: Get medical advice/attention.

In case of fire: Use for extinction: CO₂, powder or water spray.

· **Storage:**

Store in a well-ventilated place. Keep cool.

· **Disposal:**

Dispose of contents/container in accordance with local/regional/national/international regulations.

4 First aid measures

· **General information:**

Take affected persons out into the fresh air.

Involve doctor immediately.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Immediately rinse with water for 15 minutes. If irritation exists call physician.

· **After eye contact:**

Rinse opened eye for fifteen minutes under running water. If irritation persists, consult a doctor.

· **After swallowing:** Do not induce vomiting; immediately call for medical help.

· **Information for doctor:**

· **The following symptoms may occur:**

Breathing difficulty

Headache

Thirst

Cramp

Gastric or intestinal disorders

(Contd. on page 3)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/16/2009

Reviewed on 02/16/2009

Trade name: Rolmark Solvent

(Contd. of page 2)

Coughing
Allergic reactions
Nausea

5 Fire fighting measures

- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards caused by the material, its products of combustion or resulting gases:**
Nitrogen oxides (NO_x)
Carbon monoxide (CO)
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- **Person-related safety precautions:**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Wear protective clothing.
- **Measures for environmental protection:**
Do not allow product to reach sewage system or any water course.
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
Prevent from spreading (e.g. by damming-in or oil barriers).
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Dispose of the collected material according to regulations.
- **Additional information:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Store in cool, dry place in tightly closed receptacles.
Keep away from heat and direct sunlight.
Handle with care. Avoid jolting, friction and impact.
Hydrocarbon solvents are basically non-conductors of electricity and can become electrostatically charged during mixing or moving, observe grounding/grounding of containers and other equipment when handling.
- **Information about protection against explosions and fires:**
Protect against electrostatic charges.
Protect from heat.
Prevent impact and friction.

(Contd. on page 4)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/16/2009

Reviewed on 02/16/2009

Trade name: Rolmark Solvent

(Contd. of page 3)

Keep ignition sources away - Do not smoke.
Use explosion-proof apparatus / fittings and spark-proof tools.
Fumes can combine with air to form an explosive mixture.

- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Prevent any seepage into the ground.
- **Information about storage in one common storage facility:**
Do not store together with oxidizing and acidic materials as well as heavy-metal compounds.
Store away from foodstuffs.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Protect from humidity and water.
Protect from exposure to the light.

8 Exposure controls and personal protection

- **Components with limit values that require monitoring at the workplace:**

123-42-2 4-hydroxy-4-methylpentan-2-one

PEL	240 mg/m ³ , 50 ppm
REL	240 mg/m ³ , 50 ppm
TLV	238 mg/m ³ , 50 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
Pregnant women should strictly avoid inhalation or skin contact.
Do not eat, drink, smoke or sniff while working.
- **Breathing equipment:**
Use suitable respiratory protective device in case of insufficient ventilation.
Do not breath vapors, spray mists, or sanding dusts. Use air purifying respirators fitted with organic vapor/HEPA cartridges only if air monitoring demonstrates solvent/particulate levels do not exceed the respirator maximum use concentration. Use properly fitted NIOSH approved respirators. Local and general exhaust should minimize any exposure.
- **Protection of hands:**



Protective gloves

- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Nitrile rubber, NBR
Nitrile or natural rubber gloves are typically used to protect from minor contact. Butyl type are best for prolonged contact.

(Contd. on page 5)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/16/2009

Reviewed on 02/16/2009

Trade name: **Rolmark Solvent**

(Contd. of page 4)

· **Eye protection:**

Vapor proof safety goggles or full face respirator

· **Body protection:**

Solvent resistant protective clothing

Impervious protective clothing

Tyvek(R) coveralls to protect from light overspray protection or Saranex 23-P(R) for moderate exposure.

9 Physical and chemical properties

· **General Information**

Form: Fluid
Color: Clear
Odor: Alcohol-like

· **Change in condition****Melting point/Melting range:** -47°C (-53°F)**Boiling point/Boiling range:** 150°C (302°F)· **Flash point:** 58°C (136°F)· **Ignition temperature:** 620°C (1148°F)

· **Danger of explosion:** Risk of explosion by shock, friction, fire or other sources of ignition.
 In use, may form flammable/explosive vapour-air mixture.

· **Explosion limits:****Lower:** 1.4 Vol %**Upper:** 8.1 Vol %· **Vapor pressure at 20°C (68°F):** 1.1 hPa (1 mm Hg)· **Density at 20°C (68°F):** 0.93-0.94 g/cm³· **Solubility in / Miscibility with****Water:** Fully miscible.**Organic solvents:** 100 %

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.· **Dangerous reactions** Forms explosive gas mixture with air.· **Dangerous products of decomposition:**

Nitrogen oxides

Carbon monoxide and carbon dioxide

USA

(Contd. on page 6)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/16/2009

Reviewed on 02/16/2009

Trade name: **Rolmark Solvent**

(Contd. of page 5)

11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

123-42-2 4-hydroxy-4-methylpentan-2-one

Oral	LD50	4000 mg/kg (rat)
Dermal	LD50	13630 mg/kg (rab)

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Irritating effect.

- **Sensitization:**

- Sensitizing effect through inhalation is possible with prolonged exposure.

- Sensitizing effect by skin contact is possible with prolonged exposure.

- **Additional toxicological information:** Danger through skin absorption.

12 Ecological information

- **General notes:**

- Water hazard class 1 (Assessment by list): slightly hazardous for water

- This statement was deduced from the properties of the single components.

13 Disposal considerations

- **Product:**

- **Recommendation:**

- Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Hand over to hazardous waste disposers.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **DOT regulations:**



- **Hazard class:** Ink Solvent, not regulated by Title 49 Part 173.150 Exceptions for Class 3 (flammable) and combustible liquids, (f)(1)

- **Land transport ADR/RID (cross-border):**



- **ADR/RID class:** 3 Flammable liquids

- **UN-Number:** 1148

(Contd. on page 7)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/16/2009

Reviewed on 02/16/2009

Trade name: **Rolmark Solvent**

(Contd. of page 6)

- **Packaging group:** III
- **Description of goods:** 1148 DIACETONE ALCOHOL

- **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1148
- **Label:** 3
- **Packaging group:** III
- **EMS Number:** F-E,S-D
- **Marine pollutant:** No
- **Propper shipping name:** DIACETONE ALCOHOL

- **Air transport ICAO-TI and IATA-DGR:**



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1148
- **Label:** 3
- **Packaging group:** III
- **Propper shipping name:** DIACETONE ALCOHOL

- **UN "Model Regulation":** UN1993, FLAMMABLE LIQUID, N.O.S., 3, III

15 Regulations

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed or exempt.

123-42-2	4-hydroxy-4-methylpentan-2-one
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- **Carcinogenity categories**

- **IARC (International Agency for Research on Cancer)**

Substance is not listed.

- **NTP (National Toxicology Program)**

Substance is not listed.

- **NIOSH (National Institute for Occupational Safety and Health)**

123-42-2	4-hydroxy-4-methylpentan-2-one
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	Guidelines 89-104
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- **State regulations**

- **New Jersey Right-to-know Trade Secret Registry Number** TSRN 67118600000-5004P

- **Massachussetts Right-to-know / Hazardous Substance Codes**

123-42-2	4-hydroxy-4-methylpentan-2-one
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	2,4
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- **Florida Hazardous / Toxic Substance Lists**

123-42-2	4-hydroxy-4-methylpentan-2-one
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	Toxic
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(Contd. on page 8)

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 02/16/2009

Reviewed on 02/16/2009

Trade name: Rolmark Solvent

(Contd. of page 7)

· Pennsylvania Hazardous Substances		
123-42-2	4-hydroxy-4-methylpentan-2-one	--
· Minnesota Right To Know / Hazardous Substances		
123-42-2	4-hydroxy-4-methylpentan-2-one	ANO

· **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**

Xi Irritant

· **Risk phrases:**

36 Irritating to eyes.

· **Safety phrases:**

2 Keep out of the reach of children.

24/25 Avoid contact with skin and eyes.

· **National regulations:**

· **Occupational Safety and Health Act (OSHA)**

Immediate (acute) health hazard

Fire Hazard

Delayed (chronic) Health Hazard

· **Water hazard class:** Water hazard class 1 (Assessment by list): slightly hazardous for water.

16 Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

· **Contact:** Mike Rickert

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement internationale concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent