

Creation Date 11-May-2010

Revision Date 01-Feb-2024

Revision Number 4

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

Product Description:	<b>4-Hydroxy-4-methyl-2-pentanone</b>
Cat No. :	<b>A16248</b>
Synonyms	Diacetone alcohol
Index No	603-016-00-1
CAS No	123-42-2
EC No	204-626-7
Molecular Formula	C6 H12 O2
REACH registration number	-

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

Recommended Use	Laboratory chemicals.
Sector of use	SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites
Product category	PC21 - Laboratory chemicals
Process categories	PROC15 - Use as a laboratory reagent
Environmental release category	ERC6a - Industrial use resulting in manufacture of another substance (use of intermediates)
Uses advised against	No Information available

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

#### Company

Thermo Fisher (Kandel) GmbH  
Erlenbachweg 2, 76870 Kandel, Germany  
Tel: +49 (0) 721 84007 280  
Fax: +49 (0) 721 84007 300

**Swiss distributor** - Fisher Scientific AG  
Neuhofstrasse 11, CH 4153 Reinach  
Tel: +41 (0) 56 618 41 11  
<https://www.fishersci.ch/ch/en/customer-help-support/forms/email-us.html>

#### E-mail address

[begel.sdsdesk@thermofisher.com](mailto:begel.sdsdesk@thermofisher.com)

### 1.4. Emergency telephone number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

customers in Switzerland:

Tox Info Suisse Emergency Number: **145 (24hr)**  
Tox Info Suisse: +41-44 251 51 51 (Emergency number from abroad)  
Chemtrec (24h) Toll-Free: 0800 564 402  
Chemtrec Local: +41-43 508 20 11 (Zurich)

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## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

#### CLP Classification - Regulation (EC) No 1272/2008

##### Physical hazards

Flammable liquids

Category 3 (H226)

##### Health hazards

Serious Eye Damage/Eye Irritation

Category 2 (H319)

Reproductive Toxicity

Category 2 (H361d)

Specific target organ toxicity - (single exposure)

Category 3 (H335)

##### Environmental hazards

Based on available data, the classification criteria are not met

Full text of Hazard Statements: see section 16

### 2.2. Label elements



Signal Word

Warning

#### **Hazard Statements**

H226 - Flammable liquid and vapor

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H361d - Suspected of damaging the unborn child

#### **Precautionary Statements**

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P312 - Call a POISON CENTER or doctor if you feel unwell

P280 - Wear protective gloves/protective clothing/eye protection/face protection

### 2.3. Other hazards

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB)

This product does not contain any known or suspected endocrine disruptors

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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## 3.1. Substances

Component	CAS No	EC No	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Diacetone alcohol	123-42-2	EEC No. 204-626-7	>95	Flam. Liq. 3 (H226) Eye Irrit. 2 (H319) STOT SE 3 (H335) Repr. 2 (H361d)

Component	Specific concentration limits (SCL's)	M-Factor	Component notes
Diacetone alcohol	Eye Irrit. 2 (H319) :: C>=10%	-	-

REACH registration number	-
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Full text of Hazard Statements: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

General Advice	If symptoms persist, call a physician.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
Ingestion	Clean mouth with water and drink afterwards plenty of water.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
Self-Protection of the First Aider	Use personal protective equipment as required.

### 4.2. Most important symptoms and effects, both acute and delayed

None reasonably foreseeable. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

### 4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically.
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## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### Suitable Extinguishing Media

Water spray, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

#### Extinguishing media which must not be used for safety reasons

No information available.

### 5.2. Special hazards arising from the substance or mixture

Containers may explode when heated. Flammable. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

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## Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>).

### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.

### 6.2. Environmental precautions

Should not be released into the environment.

### 6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

### 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges.

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks and flame.

**Technical Rules for Hazardous Substances (TRGS) 510**  
**Storage Class (LGK) (Germany)**

Class 3

**Switzerland - Storage of hazardous substances**

Storage class - SC 3  
<https://www.kvu.ch/de/themen/stoffe-und-produkte>  
<https://www.kvu.ch/fr/themes/substances-et-produits>  
<https://www.kvu.ch/it/temi/sostanze-e-prodotti>

### 7.3. Specific end use(s)

Use in laboratories

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

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## Exposure limits

List source(s): **UK** - EH40/2005 Work Exposure Limits, Forth edition. Published 2020. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority. **CH** - The Government of Switzerland has set a directive on limit values for working materials (Grenzwerte am Arbeitsplatz) which is based on the Swiss Federal Regulation "Verordnung über die Verhütung von Unfällen und Berufskrankheiten". This directive is administered, periodically revised and enforced by SUVA (Swiss National Accident Insurance Fund).

Component	European Union	The United Kingdom	France	Belgium	Spain
Diacetone alcohol		STEL: 75 ppm 15 min STEL: 362 mg/m <sup>3</sup> 15 min TWA: 50 ppm 8 hr TWA: 241 mg/m <sup>3</sup> 8 hr	TWA / VME: 50 ppm (8 heures). TWA / VME: 240 mg/m <sup>3</sup> (8 heures).	TWA: 50 ppm 8 uren TWA: 241 mg/m <sup>3</sup> 8 uren	TWA / VLA-ED: 50 ppm (8 horas) TWA / VLA-ED: 241 mg/m <sup>3</sup> (8 horas)

Component	Italy	Germany	Portugal	The Netherlands	Finland
Diacetone alcohol		TWA: 20 ppm (8 Stunden). AGW - exposure factor 2 TWA: 96 mg/m <sup>3</sup> (8 Stunden). AGW - exposure factor 2 TWA: 20 ppm (8 Stunden). MAK TWA: 96 mg/m <sup>3</sup> (8 Stunden). MAK Höhepunkt: 40 ppm Höhepunkt: 192 mg/m <sup>3</sup> Haut	TWA: 50 ppm 8 horas		TWA: 50 ppm 8 tunteina TWA: 240 mg/m <sup>3</sup> 8 tunteina STEL: 75 ppm 15 minuutteina STEL: 360 mg/m <sup>3</sup> 15 minuutteina

Component	Austria	Denmark	Switzerland	Poland	Norway
Diacetone alcohol	Haut MAK-TMW: 50 ppm 8 Stunden MAK-TMW: 240 mg/m <sup>3</sup> 8 Stunden	TWA: 50 ppm 8 timer TWA: 240 mg/m <sup>3</sup> 8 timer STEL: 100 ppm 15 minutter STEL: 480 mg/m <sup>3</sup> 15 minutter	Haut/Peau STEL: 40 ppm 15 Minuten STEL: 192 mg/m <sup>3</sup> 15 Minuten TWA: 20 ppm 8 Stunden TWA: 96 mg/m <sup>3</sup> 8 Stunden	TWA: 240 mg/m <sup>3</sup> 8 godzinach	TWA: 25 ppm 8 timer TWA: 120 mg/m <sup>3</sup> 8 timer STEL: 37.5 ppm 15 minutter. value calculated STEL: 150 mg/m <sup>3</sup> 15 minutter. value calculated

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Diacetone alcohol		TWA-GVI: 50 ppm 8 satima. TWA-GVI: 241 mg/m <sup>3</sup> 8 satima. STEL-KGVI: 75 ppm 15 minutama. STEL-KGVI: 362 mg/m <sup>3</sup> 15 minutama.	TWA: 50 ppm 8 hr. TWA: 240 mg/m <sup>3</sup> 8 hr. STEL: 150 ppm 15 min STEL: 720 mg/m <sup>3</sup> 15 min		TWA: 200 mg/m <sup>3</sup> 8 hodinách. Ceiling: 300 mg/m <sup>3</sup>

Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Diacetone alcohol	TWA: 25 ppm 8 tundides. TWA: 120 mg/m <sup>3</sup> 8 tundides. STEL: 50 ppm 15 minutites. STEL: 240 mg/m <sup>3</sup> 15 minutites.		STEL: 75 ppm STEL: 360 mg/m <sup>3</sup> TWA: 50 ppm TWA: 240 mg/m <sup>3</sup>		TWA: 50 ppm 8 klukkustundum. TWA: 240 mg/m <sup>3</sup> 8 klukkustundum. Ceiling: 100 ppm Ceiling: 480 mg/m <sup>3</sup>

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Diacetone alcohol		TWA: 25 ppm IPRD TWA: 120 mg/m <sup>3</sup> IPRD STEL: 50 ppm STEL: 240 mg/m <sup>3</sup>			TWA: 32 ppm 8 ore TWA: 150 mg/m <sup>3</sup> 8 ore STEL: 53 ppm 15 minute STEL: 250 mg/m <sup>3</sup> 15 minute

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Diacetone alcohol	MAC: 100 mg/m <sup>3</sup>		TWA: 96 mg/m <sup>3</sup> 8 urah	Indicative STEL: 50 ppm	

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			TWA: 20 ppm 8 urah Koža STEL: 40 ppm 15 minutah STEL: 192 mg/m <sup>3</sup> 15 minutah	15 minuter Indicative STEL: 240 mg/m <sup>3</sup> 15 minuter TLV: 25 ppm 8 timmar. NGV TLV: 120 mg/m <sup>3</sup> 8 timmar. NGV	
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## Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

## Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS70 General methods for sampling airborne gases and vapours

MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent desorption and gas chromatography

MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography

## Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

Component	Acute effects local (Dermal)	Acute effects systemic (Dermal)	Chronic effects local (Dermal)	Chronic effects systemic (Dermal)
Diacetone alcohol 123-42-2 ( >95 )				DNEL = 467mg/kg bw/day

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Diacetone alcohol 123-42-2 ( >95 )	DNEL = 240mg/m <sup>3</sup>			DNEL = 32.6mg/m <sup>3</sup>

## Predicted No Effect Concentration (PNEC)

See values below.

Component	Fresh water	Fresh water sediment	Water Intermittent	Microorganisms in sewage treatment	Soil (Agriculture)
Diacetone alcohol 123-42-2 ( >95 )	PNEC = 2mg/L	PNEC = 7.4mg/kg sediment dw	PNEC = 1mg/L	PNEC = 10mg/L	PNEC = 0.31mg/kg soil dw

Component	Marine water	Marine water sediment	Marine water Intermittent	Food chain	Air
Diacetone alcohol 123-42-2 ( >95 )	PNEC = 0.2mg/L	PNEC = 0.74mg/kg sediment dw			

## 8.2. Exposure controls

### Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

### Personal protective equipment

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**Eye Protection** Goggles (European standard - EN 166)

**Hand Protection** Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Nitrile rubber	See manufacturers	-	EN 374	(minimum requirement)
Neoprene	recommendations			
Natural rubber				
PVC				

**Skin and body protection** Long sleeved clothing.

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

**Respiratory Protection** In case of insufficient ventilation, wear suitable respiratory equipment.  
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

**Large scale/emergency use** Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced  
**Recommended Filter type:** Organic gases and vapours filter Type A Brown conforming to EN14387

**Small scale/Laboratory use** Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.  
**Recommended half mask:-** Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141  
When RPE is used a face piece Fit Test should be conducted

**Environmental exposure controls** No information available.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<b>Physical State</b>	Liquid	
<b>Appearance</b>	Clear	
<b>Odor</b>	Pleasant	
<b>Odor Threshold</b>	No data available	
<b>Melting Point/Range</b>	-42.8 °C / -45 °F	
<b>Softening Point</b>	No data available	
<b>Boiling Point/Range</b>	166 °C / 330.8 °F	
<b>Flammability (liquid)</b>	Flammable	On basis of test data
<b>Flammability (solid,gas)</b>	Not applicable	Liquid
<b>Explosion Limits</b>	<b>Lower</b> 1.8 Vol% <b>Upper</b> 6.9 Vol%	
<b>Flash Point</b>	58 °C / 136.4 °F	<b>Method -</b> No information available
<b>Autoignition Temperature</b>	643 °C / 1189.4 °F	
<b>Decomposition Temperature</b>	No data available	
<b>pH</b>	No information available	
<b>Viscosity</b>	3.22 mPa.s @ 20°C	
<b>Water Solubility</b>	Miscible	
<b>Solubility in other solvents</b>	No information available	
<b>Partition Coefficient (n-octanol/water)</b>		
<b>Component</b>	<b>log Pow</b>	
Diacetone alcohol	1.03	
<b>Vapor Pressure</b>	1 mmHg @ 20 °C	
<b>Density / Specific Gravity</b>	0.939	
<b>Bulk Density</b>	Not applicable	Liquid
<b>Vapor Density</b>	4.0 (Air = 1.0)	(Air = 1.0)
<b>Particle characteristics</b>	Not applicable (liquid)	

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## 9.2. Other information

Molecular Formula C6 H12 O2  
Molecular Weight 116.16  
Explosive Properties explosive air/vapour mixtures possible  
Evaporation Rate No information available

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

None known, based on information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Hazardous Polymerization Hazardous polymerization does not occur.  
Hazardous Reactions None under normal processing.

### 10.4. Conditions to avoid

Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition.

### 10.5. Incompatible materials

Strong oxidizing agents. Alcohols. Amines. Acids. Strong bases.

### 10.6. Hazardous decomposition products

Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Product Information

#### (a) acute toxicity;

Oral Based on available data, the classification criteria are not met  
Dermal Based on available data, the classification criteria are not met  
Inhalation Based on available data, the classification criteria are not met

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Diacetone alcohol	LD50 > 4 g/kg ( Rat )	LD50 = 13500 mg/kg ( Rabbit ) LD50 = 13630 mg/kg ( Rabbit )	LC50 > 7.23 g/m <sup>3</sup> ( Rat ) 8 h

(b) skin corrosion/irritation; Based on available data, the classification criteria are not met

(c) serious eye damage/irritation; Category 2

#### (d) respiratory or skin sensitization;

Respiratory Based on available data, the classification criteria are not met  
Skin Based on available data, the classification criteria are not met

(e) germ cell mutagenicity; Based on available data, the classification criteria are not met



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Not mutagenic in AMES Test

**(f) carcinogenicity;**

Based on available data, the classification criteria are not met  
There are no known carcinogenic chemicals in this product

**(g) reproductive toxicity;**

Category 2

**(h) STOT-single exposure;**

Category 3

**Results / Target organs**

Respiratory system.

**(i) STOT-repeated exposure;**

Based on available data, the classification criteria are not met

**Target Organs**

None known.

**(j) aspiration hazard;**

Based on available data, the classification criteria are not met

**Symptoms / effects, both acute and delayed**

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

**11.2. Information on other hazards**

**Endocrine Disrupting Properties**

Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

**12.1. Toxicity**

**Ecotoxicity effects**

Component	Freshwater Fish	Water Flea	Freshwater Algae
Diacetone alcohol	LC50: = 420 mg/L, 96h (Lepomis macrochirus) LC50: = 420 mg/L, 96h static (Lepomis macrochirus)	EC50 = 8750 mg/L, 24h (Daphnia magna)	

**12.2. Persistence and degradability**

**Persistence**

Readily biodegradable  
Persistence is unlikely.

**12.3. Bioaccumulative potential**

Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Diacetone alcohol	1.03	No data available

**12.4. Mobility in soil**

The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility. Highly mobile in soils

**12.5. Results of PBT and vPvB assessment**

Substance is not considered persistent, bioaccumulative and toxic (PBT) / very persistent and very bioaccumulative (vPvB).

**12.6. Endocrine disrupting properties**

**Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

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**12.7. Other adverse effects**  
**Persistent Organic Pollutant**  
**Ozone Depletion Potential**

This product does not contain any known or suspected substance  
This product does not contain any known or suspected substance

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Waste from Residues/Unused Products**

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

**Contaminated Packaging**

Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

**European Waste Catalogue (EWC)**

According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

**Other Information**

Waste codes should be assigned by the user based on the application for which the product was used. Do not flush to sewer. Can be landfilled or incinerated, when in compliance with local regulations.

**Switzerland - Waste Ordinance**

Disposal should be in accordance with applicable regional, national and local laws and regulations. Ordinance on the Avoidance and the Disposal of Waste (Waste Ordinance, ADWO) SR 814.600  
<https://www.fedlex.admin.ch/eli/cc/2015/891/en>

## SECTION 14: TRANSPORT INFORMATION

### IMDG/IMO

<b>14.1. UN number</b>	UN1148
<b>14.2. UN proper shipping name</b>	DIACETONE ALCOHOL
<b>14.3. Transport hazard class(es)</b>	3
<b>14.4. Packing group</b>	III

### ADR

<b>14.1. UN number</b>	UN1148
<b>14.2. UN proper shipping name</b>	DIACETONE ALCOHOL
<b>14.3. Transport hazard class(es)</b>	3
<b>14.4. Packing group</b>	III

### IATA

<b>14.1. UN number</b>	UN1148
<b>14.2. UN proper shipping name</b>	DIACETONE ALCOHOL
<b>14.3. Transport hazard class(es)</b>	3
<b>14.4. Packing group</b>	III

**14.5. Environmental hazards** No hazards identified

**14.6. Special precautions for user** No special precautions required.

**14.7. Maritime transport in bulk according to IMO instruments** Not applicable, packaged goods

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## 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

### International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Diacetone alcohol	123-42-2	204-626-7	-	-	X	X	X	X	X

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Diacetone alcohol	123-42-2	X	ACTIVE	X	-	X	X	X

Legend: X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

### Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Diacetone alcohol	123-42-2	-	Use restricted. See item 75. (see link for restriction details)	-

### REACH links

<https://echa.europa.eu/substances-restricted-under-reach>

### Seveso III Directive (2012/18/EC)

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Diacetone alcohol	123-42-2	Not applicable	Not applicable

### Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

### Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Dir 92/85/EC on the protection of pregnant and breastfeeding women at work

### National Regulations

**UK** - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

### WGK Classification

See table for values

Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class
Diacetone alcohol	WGK 1	

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Component	France - INRS (Tables of occupational diseases)
Diacetone alcohol	Tableaux des maladies professionnelles (TMP) - RG 84

## Swiss Regulations

Article 4 para. 4 of the Ordinance on the protection of young people in the workplace (SR 822.115) and Article 1 lit. f of the EAER regulation on hazardous work and young people (SR 822.115.2).

Take note on Article 13 Maternity Ordinance (SR 822.111.52) with regards expectant and nursing mothers.

Component	Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81)	Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC)	Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure
Diacetone alcohol 123-42-2 ( >95 )		Group I	

## 15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

## SECTION 16: OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H361d - Suspected of damaging the unborn child

H226 - Flammable liquid and vapor

### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**TWA** - Time Weighted Average

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

Predicted No Effect Concentration (PNEC)

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

### Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadviser - LOLI, Merck index, RTECS

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (volatile organic compound)

## Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Prepared By  
Creation Date

Health, Safety and Environmental Department  
11-May-2010

# SAFETY DATA SHEET

4-Hydroxy-4-methyl-2-pentanone

Revision Date 01-Feb-2024

Revision Date 01-Feb-2024

Revision Summary New emergency telephone response service provider.

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.  
COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No  
1907/2006 .**

**For Switzerland - Compiled in accordance with the technical provisions referred to in Annex 2,  
Number 3, Chemo (SR 813.11 - Ordinance on Protection against Dangerous Substances and  
Preparations).**

## Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**