

CHEMICAL DISTRIBUTION SOLUTIONS

SDS ID: OR0401 NAME: DIACETONE ALCOHOL

Safety Data Sheet

Section 1: Identification

Product Name:	Diacetone Alcohol	DAA
Synonyms:	2-Methyl-2-Pentanol-4-One Diacetic Alcohol	
CAS No.:	123-42-2	
Chemical Formula:	C ₆ H ₁₂ O ₂	
Company:	Chemical Distribution Solutions	Emergency Number: CHEMTREC: 800-424-9300
	1125 Oak St. Ste. 303	
	Conway, AR 72032	
	(501) 978-1111	
Recommended use:	Solvent	
	Chemical Intermediate	

Section 2: Hazard(s) Identification

GHS Classification:		Category
	Flammable liquids	3
	Acute toxicity, Dermal	4
	Eye irritation	2A
	Specific target organ toxicity	3

GHS Label elements:
Pictograms:

Signal Word:
Warning
Hazard Statements:

Code	Description
H226	Flammable liquid and vapor
H312	Harmful in contact with skin.
H319	Causes serious eye irritation
H335	May cause respiratory irritation.

Precautionary Statements:

Code	Description
P210	Keep away from heat, sparks, and other ignition sources. No smoking.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P233	Keep container tightly closed
P240	Ground/bond container and receiving equipment
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P242	Take precautionary measures against static discharge.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well ventilated area.

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SDS ID: OR0401 NAME: DIACETONE ALCOHOL

Precautionary Statements:

Code	Description
P280	Wear protective gloves/eye protection/face protection.
P303, P361, P353	IF ON SKIN (or hair): remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304, P340, P312	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell
P305, P351, P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue Rinsing.
P337, P313 P363	If eye irritation persists: Get medical advice/attention. Wash contaminated clothing before re-use.
P370, P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403, P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well ventilated place, keep cool.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

Other classifications:

NFPA Rating:

Health:	2
Flammability	3
Reactivity:	0

HMIS:

Health:	2
Flammability:	3
Reactivity:	0

Section 3: Composition, Information on Ingredients

Component	CAS No	Concentration
Diacetone Alcohol	123-42-2	≥ 99%

Section 4: First-aid measures

Inhalation:	Move to fresh air in case of accidental inhalation of vapors or decomposition products. Keep at rest and consult a physician.
Ingestion:	Do NOT induce vomiting. Do not give anything to drink. Obtain medical attention.
Skin Contact:	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water. Consult a physician.
Eye Contact:	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If eye irritation persists, consult a physician
NOTE TO PHYSICIAN:	Show this safety data sheet to the doctor in attendance. First aider needs to protect himself. Place affected clothing in a sealed bag for subsequent decontamination.

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Section 5: Fire-fighting measures

Conditions of flammability:	Flammable. Vapor/air-mixtures are explosive at intense warming.
Extinguishing Media:	Use alcohol-resistant foam, dry chemical, or carbon dioxide. Do NOT use high volume water jet. Cool containers / tanks with water spray.
Special protective equip.:	Wear a self-contained breathing apparatus MSHA/NIOSH (approved or equivalent), and full protective gear.
Hazardous combustion products:	Carbon dioxide and carbon monoxide.

Section 6: Accidental release measures

Personal precautions:	Wear personal protection equipment. Avoid skin and eye contact and do not breathe the vapors. Remove all sources of ignition.
Emergency procedures:	Evacuate personnel to safe areas.
Environmental precautions:	Prevent product from entering sewage system. Try to prevent the material from entering drains or water courses.
Methods of containment/cleanup:	Collect spillage, and contaminated soil and transfer to properly labelled containers. Absorb with non-combustible absorbent material, and transfer to a container for disposal.

Section 7: Handling and storage

Handling:	Wear personal protective equipment. Provide adequate ventilation. Earth the equipment. Ground/bond container and receiving equipment. Take measures to prevent the build up of electrostatic charge. No sparking tools should be used. Handle in accordance with good industrial hygiene and safety practice. Avoid inhalation, ingestion and contact with skin and eyes.
Storage:	Store in original container. Protect from frost, heat and sunlight. Keep away from incompatible materials, heat and sources of ignition. Store contents under inert gas. Keep under nitrogen. Suitable packaging materials: Stainless steel, Carbon steel Unsuitable packaging materials: Plastic container.
Incompatibilities:	Strong oxidizing agents and strong bases.

Section 8: Exposure controls/ personal protection

Exposure Limits:	Regulator:	Test:	Allowance:
Diacetone Alcohol	ACGIH	TWA	50 ppm

Engineering Controls:	Use adequate ventilation to keep airborne concentrations low. An emergency eye wash/shower must be readily accessible to the work area.
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SDS ID: OR0401 NAME: DIACETONE ALCOHOL

Personal Protective Equipment:**Personal Respirators:** Use a respirator with NIOSH/MSHA approved filter if a risk assessment indicates this is necessary.**Skin Protection:** Choose body protection according to the amount and concentration of the dangerous substance at the work place. Remove contaminated clothing.**Eye Protection:** Tightly fitting safety goggles

Section 9: Physical and chemical properties

Appearance

Physical State: Liquid
Color: Colorless

Odor: Pleasant

Odor Perception Threshold: No data available
pH: No data available

Specific Temperatures:

Freezing/Melting Point: - 44°C -47.2°F (1.013 hPa)
Boiling Point: 167.9°C 334.22°F (1.013 hPa)
Distillation Range: No data available

Flammability Characteristics:

Flash Point: 53°C Closed cup
Auto-ignition Temperature: 643°C (1.013 hPa)

Explosivity Characteristics:

Lower (LFL): 1.80 % (V)
Upper (UFL): 6.90 % (V)
Vapor Pressure: 1.29 hPa @ 20°C
Density: 92 kg/dm³ at 20°C

Density:

Vapor Density (air=1): 1.005
Relative Density (water=1): 0.94 at 20°C

Solubility:

In Water: Miscible
Octanol/water Partition Coefficient: log Pow: -0.09 at 20°C

Complementary Data:

Molecular Weight: 116.16 g/mol
Evaporation Rate: 0.12 (n-butyl acetate = 1)

Section 10: Stability and reactivity

Stability: Stable at room temperature and under normal conditions.**Hazardous Reactions:** No data available.**Conditions to Avoid:** Heat, flames, and sparks. Prevent the build-up of electrostatic charge.**Incompatibilities:** Strong oxidizing agents and strong bases.**Hazardous Decomposition Products:** Carbon dioxide and carbon monoxide.

SDS ID: OR0401 NAME: DIACETONE ALCOHOL

Section 11: Toxicological information

Potential health effects:

Inhalation: Not classified as harmful by inhalation
 Skin Contact: Not irritating to skin and does not cause skin sensitization.
 Eye Contact: Irritating to eyes and mucous membranes.
 Ingestion: It is potentially harmful when ingested.

Symptoms of Exposure: Gastrointestinal discomfort, dizziness, headache, diarrhea, local irritation.

Numerical measures of Toxicity -

Acute Toxicity:	<u>Test</u>	<u>Subject</u>	<u>Value</u>
Oral:	LD 50	Rat	3.002 mg/kg
Inhalation:	LC 0	Rat	7.6 mg/l (4 hours)
Dermal:	LD 50	Rat	> 1.875 mg/kg

Additional Information: RTECS: SA9100000

Skin Irritation: No skin irritation
Eye Irritation: Irritating to eyes.
Sensitization: Does not cause skin sensitization.
Mutagenicity: Product is not considered to be genotoxic
Carcinogenicity: Animal testing did not show any carcinogenic effects.
Specific target organ toxicity (single exposure): May cause respiratory irritation.
 Eyes
Specific target organ toxicity (repeated exposure): Liver disorders, Kidney disorders

Section 12: Ecological information

Ecotoxicity:	<u>Test</u>	<u>Subject</u>	<u>Value</u>
Fish:	LC 50	Oryzias latipes	> 100 mg/l (96 hours)
Aquatic invertebrates:	EC 50	daphnia magna	1,000 mg/l (48 hours)
Aquatic plants:	NOEC	Green algae	1,000 mg/l (72 hours)
	EC 10	Green algae	> 429 mg/l (72 hours)
	EC 50	Green algae	> 1,000 mg/l (72 hours)
Microorganisms:	EC 50	Pseudomonas putida	825 mg/l (16 hours)
Persistence and degradability:	Readily biodegradable.		
Bioaccumulative potential:	Not potentially bioaccumulative		
Mobility in soil:	Product readily filters into the soil		

SDS ID: OR0401 NAME: DIACETONE ALCOHOL

Section 13: Disposal considerations

Product:	Do not dispose of with domestic refuse. The product should not be allowed to enter drains, water courses or the soil.
Containment:	Do not reuse package, allow to drain thoroughly. Empty remaining contents. Rinse it with appropriate solvent. Dispose of contents/ container to an approved incineration plant.
Disposal:	Dispose of in accordance with local regulations. Do not release in to the environment.

Section 14: Transport information

The information in this section is for reference only and should not take the place of a bill of lading specific to an order.

UN number:	UN 1148
UN proper shipping name:	Diacetone Alcohol
Transport hazard class:	3
Packing group number:	III
Marine Pollutant:	No
EMS:	F-E, S-D
Labels:	FLAMMABLE

Section 15: Regulatory information

US FEDERAL

TSCA: CAS#123-42-2 is listed on the TSCA inventory.

Section 16 - Other Information

SDS Creation Date:	3/1/2013
Revision date:	6/4/2015

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