

DIACETONE ALCOHOL

GHS Safety Data Sheet

Version No:3

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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

DIACETONE ALCOHOL

OTHER NAMES

C6-H12-O2, (CH₃)₂COHCH₂COCH₃, DAA, "dimethyl acetonyl carbinol", dimethylacetonylcarbinol, "diketone alcohol", "pyranton A", 4-hydroxy-4-methylpentan-2-one, 4-hydroxy-4-methylpentan-2-one, 4-hydroxy-4-methyl-2-pentanone, 4-hydroxy-4-methyl-2-pentanone, 4-hydroxy-4-methylpentanone-2, 4-hydroxy-4-methylpentanone-2, 4-hydroxy-2-keto-4-methylpentane, 4-hydroxy-2-keto-4-methylpentane, 2-methyl-2-pentanol-4-one, 2-methyl-2-pentanol-4-one

PROPER SHIPPING NAME

DIACETONE ALCOHOL

PRODUCT USE

Solvent for cellulose acetate, nitrocellulose, celluloid, fats, oils, waxes, resins, dyes, tars, lacquers, dopes, coating compositions, stains, rayon, artificial leather, imitation gold leaf, some antifreeze solutions, hydraulic compression fluids; used as a preservative for animal tissue, in metal-cleaning compounds; as a stripping agent (textiles), and as a preservative in pharmaceutical preparations.

SUPPLIER

Company: S D FINE- CHEM LIMITED

Address:

315- 317, T.V. INDUSTRIAL ESTATE,
248, WORLI,

MUMBAI- 400030.INDIA.

technical@sdfine.com

Telephone: 91- 22- 24959898

Telephone: 91- 22- 24959899

Fax: 91- 22- 24937232

HAZARD RATINGS

continued...

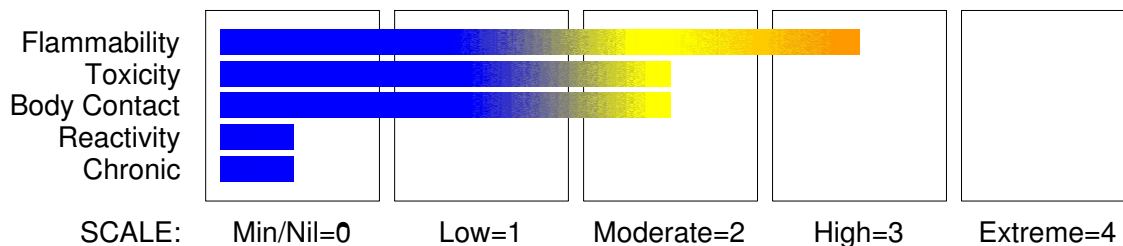
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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION



Section 2 - HAZARDS IDENTIFICATION

GHS Classification

Acute Toxicity (Oral) Category 5
Eye Irritation Category 2A
Flammable Liquid Category 3
Respiratory Irritation Category 3
Skin Corrosion/Irritation Category 3



EMERGENCY OVERVIEW

HAZARD

WARNING

Determined by using GHS criteria:
H335 H226 H303 H316 H319
May cause respiratory irritation
Flammable liquid and vapour
May be harmful if swallowed
Causes mild skin irritation
Causes serious eye irritation

PRECAUTIONARY STATEMENTS

Prevention

Use only non-sparking tools.
Take precautionary measures against static discharge
Wash hands thoroughly after handling.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment
Keep away from heat/sparks/open flame - No smoking.
Keep container tightly closed.
Wear protective gloves and eye/face protection.

Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

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Section 2 - HAZARDS IDENTIFICATION

present and easy to do. Continue rinsing.
If eye irritation persists, get medical advice/attention.
Wear eye/face protection.
If skin irritation occurs, seek medical advice/attention.
If on skin or hair: remove/take off immediately all contaminated clothing. Rinse with water/shower.
In case of fire, use alcohol-type foam for extinction.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Disposal

Dispose of contents and container in accordance with relevant legislation.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
diacetone alcohol	123-42-2	>98
water	7732-18-5	<0.5
acetone	67-64-1	<0.1

Section 4 - FIRST AID MEASURES

SWALLOWED

For advice, contact a Poisons Information Centre or a doctor.

- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

EYE

If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If skin contact occurs:

- Immediately remove all contaminated clothing, including footwear.
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

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Section 4 - FIRST AID MEASURES

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prosthesis such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

Treat symptomatically.

Stomach contents should be evacuated quickly in a manner which avoids aspiration. There is no specific antidote.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Alcohol stable foam.
- Water spray or fog.
- Carbon dioxide.
- Dry chemical powder.

FIRE FIGHTING

Alert Fire Brigade and tell them location and nature of hazard.

- May be violently or explosively reactive.
 - Wear breathing apparatus plus protective gloves for fire only.
 - Prevent, by any means available, spillage from entering drains or water courses.
- If safe to do so, switch off electrical equipment until vapour fire hazard is removed.
- Cool fire exposed containers with water spray from a protected location.
- Dilute with water.
- If safe to do so, remove containers from path of fire.

FIRE/EXPLOSION HAZARD

- Liquid and vapour are flammable.
- Moderate fire hazard when exposed to heat or flame.
- Vapour forms an explosive mixture with air.
- Moderate explosion hazard when exposed to heat or flame.
- Vapour may travel a considerable distance to source of ignition.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- On combustion, may emit toxic fumes of carbon monoxide (CO).

FIRE INCOMPATIBILITY

Avoid contamination with strong oxidising agents as ignition may result.

Personal Protective Equipment

Breathing apparatus.

Chemical splash suit.

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Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

Clean up all spills immediately.

Wear protective neoprene gloves and chemical goggles.

Shut off all possible sources of ignition and increase ventilation.

Avoid breathing vapours and contact with skin and eyes.

Wipe up and absorb small quantities with vermiculite or other absorbent material.

Place in suitable containers for disposal.

MAJOR SPILLS

Clear area of personnel and move upwind.

Alert Fire Brigade and tell them location and nature of hazard.

Shut off all possible sources of ignition and increase ventilation.

- May be violently or explosively reactive.

- Wear breathing apparatus plus protective gloves.

- Prevent, by any means available, spillage from entering drains or water courses.

Stop leak if safe to do so.

Absorb or cover spill with sand, earth, inert material or vermiculite.

Recover liquid and place in labelled, sealable container for recycling.

Collect, using a spark-free shovel, and seal in labelled drums for disposal.

After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.

If contamination of drains or waterways occurs, advise emergency services.

EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:

diacetone alcohol 1800 ppm

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:

diacetone alcohol 50 ppm

other than mild, transient adverse effects without perceiving a clearly defined odour is:

diacetone alcohol 50 ppm

The threshold concentration below which most people will experience no appreciable risk of health effects:

diacetone alcohol 50 ppm

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

Very Toxic (T+)	$\geq 0.1\%$	Toxic (T)	$\geq 3.0\%$
R50	$\geq 0.25\%$	Corrosive (C)	$\geq 5.0\%$
R51	$\geq 2.5\%$		
else	$\geq 10\%$		

where percentage is percentage of ingredient found in the mixture

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Section 6 - ACCIDENTAL RELEASE MEASURES

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS



+: May be stored together

O: May be stored together with specific precautions

X: Must not be stored together

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Avoid generating and breathing mist.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of overexposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights or ignition sources.
- Avoid generation of static electricity.
- DO NOT use plastic buckets.
- Earth all lines and equipment.
- Use spark-free tools when handling.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.

SUITABLE CONTAINER

- Packaging as recommended by manufacturer.
- Check that containers are clearly labelled.
- Store in metal drums or safety cans.
- Glass container.
- Steel drum with plastic liner.

STORAGE INCOMPATIBILITY

- Avoid reaction with oxidising agents.
- Avoid storage with amines, alkanolamines, pyridines, ammonia, isocyanates, inorganic acids and alkalies. Storage containers made from brass, bronze or lead may cause contamination.

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Section 7 - HANDLING AND STORAGE

STORAGE REQUIREMENTS

- Store in original containers in approved flammable liquid storage area.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- No smoking, naked lights, heat or ignition sources.
- Keep containers securely sealed.
- Store away from incompatible materials in a cool, dry, well-ventilated area.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

The following materials had no OELs on our records

- diacetone alcohol: CAS:123- 42- 2
- water: CAS:7732- 18- 5 CAS:558440- 53- 2 CAS:558440- 22- 5
- acetone: CAS:67- 64- 1 CAS:128218- 62- 2

EMERGENCY EXPOSURE LIMITS

Material	Revised IDLH Value (mg/m3)	Revised IDLH Value (ppm)
diacetone alcohol		1, 800 [LEL]
acetone		2, 500 [LEL]

NOTES

Values marked LEL indicate that the IDLH was based on 10% of the lower explosive limit for safety considerations even though the relevant toxicological data indicated that irreversible health effects or impairment of escape existed only at higher concentrations.

ODOUR SAFETY FACTOR (OSF)

OSF=38 (ACETONE)

Exposed individuals are reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.

Odour Safety Factor (OSF) is determined to fall into either Class A or B.

The Odour Safety Factor (OSF) is defined as:

OSF= Exposure Standard (TWA) ppm/ Odour Threshold Value (OTV) ppm

Classification into classes follows:

Class	OSF	Description
A	550	Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV- TWA for example) is being reached, even when distracted by working activities
B	26- 550	As " A " for 50- 90% of persons being distracted
C	1- 26	As " A " for less than 50% of persons being distracted
D	0.18- 1	10- 50% of persons aware of being tested perceive by smell

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

E	<0.18	that the Exposure Standard is being reached As " D" for less than 10% of persons aware of being tested
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MATERIAL DATA

Odour Threshold Value: 0.27 ppm (detection), 1.1 ppm (recognition)
The TLV-TWA is thought to be protective against eye, nose and throat irritation. Eye irritation appeared in the majority of subjects exposed for 15 minutes to 100 ppm. This concentration also elicited complaints of nose and throat irritation, objectionable odour and taste.

INGREDIENT DATA

WATER:

No exposure limits set by NOHSC or ACGIH.

ACETONE:

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B	26- 550	As " A" for 50- 90% of persons being distracted
C	1- 26	As " A" for less than 50% of persons being distracted
D	0.18- 1	10- 50% of persons aware of being tested perceive by smell that the Exposure Standard is being reached
E	<0.18	As " D" for less than 10% of persons aware of being tested

Odour Threshold Value: 3.6 ppm (detection), 699 ppm (recognition)

Saturation vapour concentration: 237000 ppm @ 20 C

NOTE: Detector tubes measuring in excess of 40 ppm, are available.

Exposure at or below the recommended TLV-TWA is thought to protect the worker against mild irritation associated with brief exposures and the bioaccumulation, chronic irritation of the respiratory tract and headaches associated with long-term acetone exposures. The NIOSH REL-TWA is substantially lower and has taken into account slight irritation experienced by volunteer subjects at 300 ppm. Mild irritation to acclimatised workers begins at about 750 ppm - unacclimatised subjects

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will experience irritation at about 350-500 ppm but acclimatisation can occur rapidly. Disagreement between the peak bodies is based largely on the view by ACGIH that widespread use of acetone, without evidence of significant adverse health effects at higher concentrations, allows acceptance of a higher limit.

Half-life of acetone in blood is 3 hours which means that no adjustment for shift-length has to be made with reference to the standard 8 hour/day, 40 hours per week because body clearance occurs within any shift with low potential for accumulation.

A STEL has been established to prevent excursions of acetone vapours that could cause depression of the central nervous system.

PERSONAL PROTECTION



EYE

- Safety glasses with side shields; or as required,
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET

- Neoprene gloves and
 - Barrier cream or Rubber gloves.
- Safety footwear.

OTHER

- Impervious protective clothing.
 - Eyewash unit.
- Ensure there is ready access to an emergency shower.

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:
"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the computer-generated selection: diacetone alcohol

Protective Material CPI *.

NEOPRENE
NITRILE

A
A

continued...

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

PVA B
NATURAL RUBBER C

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

RESPIRATOR

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level ppm (volume)	Maximum Protection Factor	Half- face Respirator	Full- Face Respirator
1000	10	AX- AUS	-
1000	50	-	AX- AUS
5000	50	Airline *	-
5000	100	-	AX- 2
10000	100	-	AX- 3
	100+		Airline**

* - Continuous Flow

** - Continuous-flow or positive pressure demand.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.

For further information consult
your

Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

Use in a well-ventilated area or Local exhaust ventilation may be required for safe working, i.e. to keep exposures below required standards, otherwise PPE is required. General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in special circumstances. If risk of overexposure exists, wear approved respirator. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. Provide adequate ventilation in warehouses and enclosed storage areas. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant:
solvent, vapours, degreasing etc., evaporating
from tank (in still air).
aerosols, fumes from pouring operations,
intermittent container filling, low speed
conveyer transfers, welding, spray drift,
plating acid fumes, pickling (released at low
velocity into zone of active generation)

Air Speed:
0.25- 0.5 m/s (50- 100 f/min)

0.5- 1 m/s (100- 200 f/min.)

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direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion)

1- 2.5 m/s (200- 500 f/min.)

2.5- 10 m/s (500- 2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range

1: Room air currents minimal or favourable to capture

2: Contaminants of low toxicity or of nuisance value only.

3: Intermittent, low production.

4: Large hood or large air mass in motion

Upper end of the range

1: Disturbing room air currents

2: Contaminants of high toxicity

3: High production, heavy use

4: Small hood- local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Colourless flammable liquid; mixes with water. Can become yellow on ageing.

Mild pleasant characteristic odour. Mixes with most solvents.

CARE: Low cost grades may contain considerable acetone and are low flash

Packing Group II materials of increased flammability hazard.

PHYSICAL PROPERTIES

Liquid.

Mixes with water.

Molecular Weight: 116.16

Melting Range (°C): - 43 to - 57

Solubility in water (g/L): Miscible

pH (1% solution): Not available.

Volatile Component (%vol): 100

Relative Vapour Density (air=1): 4

Lower Explosive Limit (%): 1.8

Autoignition Temp (°C): 603

State: Liquid

Boiling Range (°C): 168- 169

Specific Gravity (water=1): 0.94 @ 20 C

pH (as supplied): Not applicable

Vapour Pressure (kPa): 0.13 @ 20 C

Evaporation Rate: 0.14 BuAc=1

Flash Point (°C): 58 tech. grade

Upper Explosive Limit (%): 6.9

Decomposition Temp (°C): Not available

Viscosity: Not available

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Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

log Kow (Prager 1995):	- 0.24
log Kow (Sangster 1997):	- 0.24
log Kow: -0.24	

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
 - Product is considered stable.
 - Hazardous polymerisation will not occur.
-

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

Although ingestion is not thought to produce harmful effects (as classified under EC Directives), the material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

Considered an unlikely route of entry in commercial/industrial environments.

EYE

Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals.

Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.

The liquid produces a high level of eye discomfort and is capable of causing pain and severe conjunctivitis. Corneal injury may develop, with possible permanent impairment of vision, if not promptly and adequately treated.

if exposure is prolonged.

The vapour when concentrated has pronounced eye irritation effects and this gives some warning of high vapour concentrations. If eye irritation occurs seek to reduce exposure with available control measures, or evacuate area.

The material may produce severe irritation to the eye causing pronounced inflammation.

Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN

Skin contact with the material may damage the health of the individual; systemic effects may result following absorption.

Limited evidence exists, or practical experience predicts, that the material either

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Section 11 - TOXICOLOGICAL INFORMATION

produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.

Toxic effects may result from skin absorption.

Absorption by skin may readily exceed vapour inhalation exposure. Symptoms for skin absorption are the same as for inhalation.

The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

INHALED

Inhalation may produce health damage*.

Limited evidence exists, or practical experience predicts, that the material produces irritation of the respiratory system in a significant number of individuals following inhalation.

Inhalation hazard is increased at higher temperatures.

Acute effects from inhalation of high concentrations of vapour are pulmonary irritation, including coughing, with nausea; central nervous system depression - characterised by headache and dizziness, increased reaction time, fatigue and loss of co-ordination.

If exposure to highly concentrated solvent atmosphere is prolonged this may lead to narcosis, unconsciousness, even coma and possible death.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are usually by skin contact.
with the liquid and inhalation of vapour.

Prolonged or continuous skin contact with the liquid may cause defatting with drying, cracking, irritation and dermatitis following.

Animal tests have produced anaemia and damage to kidneys and liver.

TOXICITY AND IRRITATION

TOXICITY

Oral (rat) LD50: 4000 mg/kg

Dermal (rabbit) LD50: 13500 mg/kg

Inhalation (human) TClO: 400 ppm resp.effect

Inhalation(human)TClO:100 ppm Irritant

IRRITATION

Skin (rabbit): 500 mg Open Mild

Eye (human): 100 ppm/15 mins.

Eye (rabbit): 5 mg SEVERE

WATER:

No significant acute toxicological data identified in literature search.

ACETONE:

TOXICITY

Oral (man) TDLo: 2857 mg/kg

Oral (rat) LD50: 5800 mg/kg

Inhalation (human) TClO: 500 ppm

Inhalation (man) TClO: 12000 ppm/4 hr

Inhalation (man) TClO: 10 mg/m³/6 hr

Inhalation (rat) LC50: 50100 mg/m³/8 hr

IRRITATION

Eye (human): 500 ppm - Irritant

Eye (rabbit): 3.95 mg - SEVERE

Eye (rabbit): 20mg/24hr - Moderate

Skin (rabbit):395mg (open) - Mild

Skin (rabbit): 500 mg/24hr - Mild

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Section 11 - TOXICOLOGICAL INFORMATION

Dermal (rabbit) LD50: 20000 mg/kg

Section 12 - ECOLOGICAL INFORMATION

Fish LC50 (96hr.) (mg/l): 10- 100

BOD 5 if unstated: 0.07,3%

COD: 2.11,95%

ThOD: 2.21

Toxicity invertebrate: LC50(96) insect 24mg/L

Refer to data for ingredients, which follows:

ACETONE:

Fish LC50 (96hr.) (mg/l): 8300- 40000

Daphnia magna EC50 (48hr.) (mg/l): 10

log Kow (Prager 1995): - 0.24

log Kow (Sangster 1997): - 0.24

log Pow (Verschueren 1983): - 0.24

BOD5: 122%

ThOD: 72

Half- life Soil - High (hours): 168

Half- life Soil - Low (hours): 24

Half- life Air - High (hours): 2790

Half- life Air - Low (hours): 279

Half- life Surface water - High (hours): 168

Half- life Surface water - Low (hours): 24

Half- life Ground water - High (hours): 336

Half- life Ground water - Low (hours): 48

Aqueous biodegradation - Aerobic - High (hours): 168

Aqueous biodegradation - Aerobic - Low (hours): 24

Aqueous biodegradation - Anaerobic - High (hours): 672

Aqueous biodegradation - Anaerobic - Low (hours): 96

Aqueous biodegradation - Removal secondary treatment - High (hours): 75%

Aqueous biodegradation - Removal secondary treatment - Low (hours): 54%

Aqueous photolysis half- life - High (hours): 270

Photooxidation half- life water - High (hours): 3.97E+06

Photooxidation half- life water - Low (hours): 9.92E+04

Photooxidation half- life air - High (hours): 2790

Photooxidation half- life air - Low (hours): 279

DO NOT discharge into sewer or waterways.

log Kow: -0.24

Half-life (hr) air: 312-1896

Half-life (hr) H2O surface water: 20

Henry's atm m³ /mol: 3.67E-05

BOD 5 if unstated: 0.31-1.76,46-55%

COD: 1.12-2.07

ThOD: 2.2

BCF: 0.69

Toxicity Fish: LC50(96) 5540-13000mg/L

Toxicity invertebrate: cell mult. inhib. 28-7500mg/L

Bioaccumulation: not sig

Nitrif. inhib.: 75% decr. at 840mg/L

Anaerobic effects: sig degrad

continued...

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Section 12 - ECOLOGICAL INFORMATION

Degradation Biological: sig
processes Abiotic: Rxn OH*, photodissoc
In air, acetone is lost by photolysis and reaction with photochemically
produced hydroxyl radicals; the estimated half-life of these combined
processes is about 22 days. The relatively long half-life allows acetone
to be transported long distances from its emission source.
Acetone is highly soluble and slightly persistent in water, with a
half-life of about 20 hours; it is minimally toxic to aquatic life.
Acetone released to soil volatilises although some may leach into the
ground where it rapidly biodegrades.
Acetone does not concentrate in the food chain.
Drinking Water Standard: none available.
Soil Guidelines: none available.
Air Quality Standards: none available.

Section 13 - DISPOSAL CONSIDERATIONS

- Consult manufacturer for recycling options and recycle where possible .
- Consult State Land Waste Management Authority for disposal.
- Incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: FLAMMABLE LIQUID
HAZCHEM: 2[Y]

UNDG:

Dangerous Goods Class: 3
UN Number: 1148
Shipping Name: DIACETONE ALCOHOL

Subrisk: None
Packing Group: III

Air Transport IATA:

ICAO/IATA Class: 3
UN/ID Number: 1148
ERG Code: 3L
Shipping name: DIACETONE ALCOHOL

ICAO/IATA Subrisk: None
Packing Group: III

Maritime Transport IMDG:

IMDG Class: 3
UN Number: 1148
EMS Number: F- E, S- D
Shipping name: DIACETONE ALCOHOL

IMDG Subrisk: None
Packing Group: III

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Section 15 - REGULATORY INFORMATION

REGULATIONS

diacetone alcohol (CAS: 123-42-2) is found on the following regulatory lists;
IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk
OECD Representative List of High Production Volume (HPV) Chemicals

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
water	7732- 18- 5, 558440- 53- 2, 558440- 22- 5
acetone	67- 64- 1, 128218- 62- 2

The above information is believed to be accurate and represent the best information currently available to us, but does not represent any warranty expressed or implied of the properties of the product. User should make their own investigation to determine the suitability of the information for their particular purpose.

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