



# DISCOVERY 2011

## 1 Identification

Product identifier

Trade name: Acetone Technical grade

Article number: A2300 CAS Number:

67-64-1 EC number:

200-662-2 Index number:

606-001-00-8

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

No further relevant information available.

Application of the substance / the mixture

Chemical for various applications Laboratory chemical

Chemical analytics Chemical production

Details of the supplier of the safety data sheet

Manufacturer/Supplier/Dealer

D3 Industrial Products

Garden Grove, California 92841 USA

Emergency telephone number:

USA 800-255-3924 OUTSIDE THE USA 813-248-05850

## 2 Hazard(s) identification



Classification of the substance or mixture GHS02 Flame



GHS07

Flam. Liq. 2 H225 Highly flammable liquid and vapor.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.



Classification according to Directive 67/548/EEC or Directive 1999/45/EC Irritant



Highly flammable

Irritating to eyes.

(Contd. on page 2)

Highly flammable.



Repeated exposure may cause skin dryness or cracking. Vapors may cause drowsiness and dizziness.

- Information concerning particular hazards for human and environment:

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

- Label elements
- Labelling according to EU guidelines:

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



Irritant

Highly flammable

- Code letter and hazard designation of product:
- Risk phrases:

Highly flammable.

Irritating to eyes.

Repeated exposure may cause skin dryness or cracking. Vapors may cause drowsiness and dizziness.

- Safety phrases:

Keep container in a well-ventilated place.

Keep away from sources of ignition - No smoking.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

- Classification system:



Health = 1 Fire = 3 Reactivity = 0

HEALTH	1
FIRE	3
REACTIVITY	0

- NFPA ratings (scale 0 - 4)

Health = 1 Fire = 3 Reactivity = 0

- HMIS-ratings (scale 0 – 4)

Other hazards

- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

### 3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description 67-64-1 acetone
- Identification number(s)
- EC number: 200-662-2



- *Index number: 606-001-00-8*

#### **4 First-aid measures**

- *Description of first aid measures*

- *General information: Immediately remove any clothing soiled by the product.*

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

- *After skin contact:*

*Immediately rinse with water.*

*If skin irritation continues, consult a doctor.*

- *After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.*

- *After swallowing:*

*Rinse out mouth.*

*Do not induce vomiting; immediately call for medical help.*

*Risk of aspiration!*

*Keep airways free.*

- *Most important symptoms and effects, both acute and delayed No further relevant information available.*

- *Indication of any immediate medical attention and special treatment needed*

*No further relevant information available.*

#### **5 Fire-fighting measures**

- *Extinguishing media*

- *Suitable extinguishing agents:*

*CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.*

- *For safety reasons unsuitable extinguishing agents: Water with full jet*

- *Special hazards arising from the substance or mixture*

*Combustible.*

*Vapors are heavier than air and may spread along floors.*

*Forms explosive mixtures with air at ambient temperatures.*

*Beware of backfiring.*

- *Advice for firefighters*

- *Protective equipment:*

*Wear self-contained respiratory protective device.*

*In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.*

*Wear fully protective suit.*

- *Additional information*

*Dispose of fire debris and contaminated firefighting water in accordance with official regulations. Collect contaminated firefighting water separately. It must not enter the sewage system.*

*Contain escaping vapors with water.*



## 6 Accidental release measures

- *Personal precautions, protective equipment and emergency procedures*

*Wear protective equipment. Keep unprotected persons away.*

*Do not inhale steams/aerosols.*

*Keep away from ignition sources Avoid substance contact.*

*Ensure adequate ventilation*

- *Environmental precautions: Do not allow to enter sewers/ surface or ground water.*

- *Methods and material for containment and cleaning up:*

*Absorb with liquid-binding material (AppliSorb).*

*Clean up affected area.*

*Dispose of the collected material according to regulations.*

- *Reference to other sections*

*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

- *Precautions for safe handling*

*Open and handle receptacle with care. Work only in fume cabinet.*

*Do not inhale substance.*

*Avoid generation of vapors/aerosols.*

- *Information about protection against explosions and fires:*

*Keep ignition sources away - Do not smoke.*

*Protect against electrostatic charges.*

- *Conditions for safe storage, including any incompatibilities*

- *Storage:*

- *Requirements to be met by storerooms and receptacles: Store in a cool location.*

- *Information about storage in one common storage facility: Away from sources of ignition and heat.*

- *Further information about storage conditions:*

*Keep receptacle tightly sealed.*

*Store in cool, dry conditions in well-sealed receptacles.*

*Store receptacle in a well ventilated area.*

*Store only outside or in explosion proof rooms.*

- *Recommended storage temperature: 15-25 °C*

- *Storage class: 3*

- *Specific end use(s) No further relevant information available.*

## 8 Exposure controls/personal protection

*.Additional information about design of technical systems: No further data; see item 7.*



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

67-64-1 acetone

PEL () Long-term value: 2400 mg/m<sup>3</sup>, 1000 ppm REL () Long-term value: 590 mg/m<sup>3</sup>, 250 ppm TLV ()

Short-term value: (1782) NIC-1187 mg/m<sup>3</sup>, (750) NIC-500 ppm Long-term value: (1188) NIC-594 mg/m<sup>3</sup>, (500) NIC-250 ppm BEI

- *Ingredients with biological limit values:*

67-64-1 acetone

BEI () 50 mg/L

Medium: urine

Time: end of shift

Parameter: Acetone (nonspecific)

- *Additional information: The lists that were valid during the creation were used as basis.*

- *Exposure controls*

- *Personal protective equipment:*

- *General protective and hygienic measures:*

*Immediately remove all soiled and contaminated clothing.*

*Wash hands before breaks and at the end of work.*

*Avoid contact with the eyes and skin.*

- *Breathing equipment:*

*Respiratory protection required when vapors/aerosols are generated.*

*Filter AX*

- *Protection of hands:*

*The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.*

*Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation*

- *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.*

- *Penetration time of glove material*

*The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.*

- *For the permanent contact gloves made of the following materials are suitable:*

*Recommended thickness of the material: > 0.7 mm Butyl rubber, BR*

*Value for the permeation: Level > 480 min*

- *As protection from splashes gloves made of the following materials are suitable:*

*Recommended thickness of the material: > 0.7 mm Natural rubber, NR*

*Value for the permeation: Level > 10 min*



Tightly sealed goggles

- Eye protection:

Body protection:

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled.

## 9 Physical and chemical properties

• Information on basic physical and chemical properties

• General Information

- Appearance:

Form: Fluid

Color: Colorless

- Odor: Fruit-like

• pH-value: Not determined.

• Change in condition -94 °C (-137 °F) 56 °C (133 °F)

Melting point/Melting range:

Boiling point/Boiling range:

• Flash point: < -18 °C (< -0 °F)

• Ignition temperature: 465 °C (869 °F)

• Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

• Explosion limits: Lower: 2.2 Vol %

Upper: 12.8 Vol %

• Vapor pressure at 20 °C (68 °F): 233 hPa (175 mm Hg)

• Density at 20 °C (68 °F): 0.791 g/cm<sup>3</sup> (6.601 lbs/gal)

• Solubility in / Miscibility with Fully miscible.

Water:

• Viscosity: Dynamic: Kinematic: Not determined. Not determined.

Organic solvents: • Other 100.0 %

information No further relevant information available.

## 10 Stability and reactivity

■ Reactivity Chemical stability

■ Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.



- Possibility of hazardous reactions

Reacts with reducing agents.

Reacts with strong acids and oxidizing agents.

Forms explosive gas mixture with air.

- Conditions to avoid No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: In the event of fire: See chapter 5

## 11 Toxicological information

### • Information on toxicological effects

- Acute toxicity:

### • LD/LC50 values that are relevant for classification:

Components	Type	Value	Species
67-64-1 acetone			
Oral	LD50	5800 mg/kg	(rat)
Dermal	LD50	>15800 mg/kg	(rabbit)
Inhalative	LC50/4 h	76 mg/l	(rat)

- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: Irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
  - Carcinogenic categories
  - IARC (International Agency for Research on Cancer)

Substance is not listed.

- NTP (National Toxicology Program)

Substance is not listed.

- OSHA-Ca (Occupational Safety & Health Administration)

Substance is not listed.

## 12 Ecological information

- Toxicity
- Aquatic toxicity:
  - Type of test Effective concentration Method Assessment 67-64-1 acetone
  - LC50/48 h 8800 mg/l (daphnia magna)
  - LC50/96 h 11000 mg/l (fish)
- Persistence and degradability No further relevant information available.
- Bio accumulative potential No further relevant information available.
- Mobility in soil No further relevant information available.



- *Additional ecological information:*

- *General notes:*

*Water hazard class 1 (Assessment by list): slightly hazardous for water Do not allow to enter waters, waste water, or soil.*

- *Results of PBT and vPvB assessment*

- *PBT: Not applicable.*

- *vPvB: Not applicable.*

- *Other adverse effects No further relevant information available.*

### **13 Disposal considerations**

- *Waste treatment methods*

- *Recommendation: Chemicals must be disposed of in compliance with the respective national regulations.*

- *Uncleaned packaging's:*

- *Recommendation:*

*Disposal must be made according to official regulations.*



- *Class*

- *Label*

- *ADR*

*3 Flammable liquids 3*



- *Class*

- *Label*

- *IMDG, IATA*

*3 (F1) Flammable liquids 3*



- *Class*

- *Label*





### 3 Flammable liquids 3

Packaging's that cannot be cleansed are to be disposed of in the same manner as the product.

## 14 Transport information

• UN-Number	
• DOT, ADR, IMDG, IATA	UN1090
• UN proper shipping name	
• DOT, ADR	Acetone
• IMDG, IATA	ACETONE
Transport hazard class(es) DOT	
• Packing group	
• DOT, ADR, IMDG, IATA	II
• Environmental hazards:	
• Marine pollutant:	No
• Special precautions for user	Warning: Flammable liquids
• Danger code (Kemler):	33
• EMS Number:	F-E,S-D
• Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	
	Not applicable.
• Transport/Additional information:	
• ADR	
• Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
• IMDG	
• Limited quantities (LQ)	1L
• Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
• UN "Model Regulation":	UN1090, Acetone, 3, II

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara
- Section 355 (extremely hazardous substances):  
Substance is not listed.
- Section 313 (Specific toxic chemical listings):  
Substance is not listed.
- TSCA (Toxic Substances Control Act):



Substance is listed.

- Proposition 65
- Chemicals known to cause cancer:

Substance is not listed.

- Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

- Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

- Chemicals known to cause developmental toxicity:

Substance is not listed.

- Cancerogenity categories

• EPA (Environmental Protection Agency)	
67-64-1 acetone	I
• TLV (Threshold Limit Value established by ACGIH)	
67-64-1 acetone	A4
• NIOSH-Ca (National Institute for Occupational Safety and Health)	
Substance is not listed.	

- Product related hazard information:

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



Irritant

Highly flammable

- Hazard symbols:

• Risk phrases:

Highly flammable.

Irritating to eyes.

Repeated exposure may cause skin dryness or cracking.

Vapors may cause drowsiness and dizziness.

- Safety phrases:

Keep container in a well-ventilated place.

Keep away from sources of ignition - No smoking.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.



- *Department issuing MSDS: Dept. Quality Control*
- *Date of preparation / last revision 10/04/2014 /1*
- *Abbreviations and acronyms:*

*RID: Reglement international concern ant le transport des marchandises dangerousness par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*

*ICAO: International Civil Aviation Organization*

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

*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*ACGIH: American Conference of Governmental Industrial Hygienists*

*EINECS: European Inventory of Existing Commercial Chemical Substances*

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

*NFPA: National Fire Protection Association (USA)*

*HMS: Hazardous Materials Identification System (USA)*

*LC50: Lethal concentration, 50 percent*

*LD50: Lethal dose, 50 percent*

*Flam. Liq. 2: Flammable liquids, Hazard Category 2*

*Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2*

*STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3*