

Material Safety Data Sheet

acc. to OSHA and ANSI

Printing date 05/15/2009

Reviewed on 05/15/2009

1 Identification of substance:**Product details:****Product name:** 1,3-Dichloroacetone**Stock number:** 36553**Manufacturer/Supplier:**

Alfa Aesar, A Johnson Matthey Company
 Johnson Matthey Catalog Company, Inc.
 30 Bond Street
 Ward Hill, MA 01835-8099
 Emergency Phone: (978) 521-6300
 CHEMTREC: (800) 424-9300
 Web Site: www.alfa.com

Information Department: Health, Safety and Environmental Department**Emergency information:**

During normal hours the Health, Safety and Environmental Department. After normal hours call Chemtrec at (800) 424-9300.

2 Composition/Data on components:**Chemical characterization:****Description: (CAS#)**

1,3-Dichloroacetone (CAS# 534-07-6), 100%

Identification number(s):**EINECS Number:** 208-585-6**3 Hazards identification****Hazard description:**

T+ Very toxic

Information pertaining to particular dangers for man and environment

R 23/24 Toxic by inhalation and in contact with skin.

R 28 Very toxic if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

R 68 Possible risk of irreversible effects.

Classification system**HMIS ratings (scale 0-4)****(Hazardous Materials Identification System)**

HEALTH	3
FIRE	1
REACTIVITY	1

Health (acute effects) = 3

Flammability = 1

Reactivity = 1

GHS label elements**Danger**

3.1/2 - Fatal if swallowed.

3.1/2 - Fatal in contact with skin.

3.1/2 - Fatal if inhaled.

3.2/2 - Causes skin irritation.

3.3/2A - Causes serious eye irritation.

3.8/3 - May cause respiratory irritation.

**Warning**

3.5/2 - Suspected of causing genetic defects.

Prevention:

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust/fume/gas/mist/vapours/spray.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Do not get in eyes, on skin, or on clothing.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

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

Use personal protective equipment as required.

Wear respiratory protection.

Response:

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

IF ON SKIN: Gently wash with plenty of soap and water.

IF ON SKIN: Wash with plenty of soap and water.

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

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

IF exposed or concerned: Get medical advice/attention.

Immediately call a POISON CENTER or doctor/physician.

Call a POISON CENTER or doctor/physician if you feel unwell.

Specific treatment is urgent (see label).

Specific treatment (see label).

Specific measures (see label).

Rinse mouth.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Remove/Take off immediately all contaminated clothing.

Take off contaminated clothing and wash before reuse.

Wash contaminated clothing before reuse.

Storage:

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Disposal:

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

4 First aid measures**General information**

Immediately remove any clothing soiled by the product.

Remove breathing apparatus only after contaminated clothing has been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

After skin contact

Immediately wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

After eye contact

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing

Do not induce vomiting; immediately call for medical help.

Seek immediate medical advice.

5 Fire fighting measures**Suitable extinguishing agents** CO2, sand, extinguishing powder. Do not use water.**For safety reasons unsuitable extinguishing agents** Water**Special hazards caused by the material, its products of combustion or resulting gases:**

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

Hydrogen chloride (HCl)

Protective equipment:

Wear self-contained respirator.

Wear fully protective impervious suit.

6 Accidental release measures**Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Measures for environmental protection:

Do not allow material to be released to the environment without proper governmental permits.

Measures for cleaning/collecting:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

Additional information:

See Section 7 for information on safe handling

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See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage**Handling****Information for safe handling:**

Keep container tightly sealed.
Store in cool, dry place in tightly closed containers.
Ensure good ventilation at the workplace.
Open and handle container with care.

Information about protection against explosions and fires: No special measures required.

Storage

Requirements to be met by storerooms and receptacles: No special requirements.

Information about storage in one common storage facility:

Store away from water/moisture.
Store away from oxidizing agents.
Do not store together with alkalies (caustic solutions).
Store away from reducing agents.

Further information about storage conditions:

Keep container tightly sealed.
Protect from humidity and water.
Store in cool, dry conditions in well sealed containers.

8 Exposure controls and personal protection**Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Components with limit values that require monitoring at the workplace: Not required.

Additional information: No data

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.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.

Breathing equipment: Use suitable respirator when high concentrations are present.

Protection of hands: Impervious gloves

Eye protection: Safety glasses

Body protection: Protective work clothing.

9 Physical and chemical properties:**General Information**

Form:	Crystalline
Color:	Light brown
Odor:	Odorless

Change in condition

Melting point/Melting range:	40-41°C (104-106°F)
Boiling point/Boiling range:	173°C (343°F)
Sublimation temperature / start:	Not determined

Flash point:	89°C (192°F)
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Ignition temperature:	Not determined
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Decomposition temperature:	Not determined
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Danger of explosion:	Product does not present an explosion hazard.
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Explosion limits:

Lower:	Not determined
Upper:	Not determined

Vapor pressure at 20°C (68°F):	<0.133 hPa (<0 mm Hg)
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Density: Not determined**10 Stability and reactivity****Thermal decomposition / conditions to be avoided:**

Decomposition will not occur if used and stored according to specifications.

Materials to be avoided:Water/moisture
Oxidizing agents
Bases
Reducing agents**Dangerous reactions** No dangerous reactions known**Dangerous products of decomposition:**Carbon monoxide and carbon dioxide
Hydrogen chloride (HCl)**11 Toxicological information****Acute toxicity:****LD/LC50 values that are relevant for classification:**

Oral	LD50	18900 mg/kg (mouse) 20 mg/kg (rat)
	LD50	53 mg/kg (rabbit)
Dermal	LD50	53 mg/kg (rabbit)
	Inhalative	LC50/2H
Irritation of skin		severe
Irritation of eyes	severe	100000 ug (rabbit)

Primary irritant effect:**on the skin:** Irritant to skin and mucous membranes.**on the eye:** Irritating effect.**Sensitization:** Sensitization possible through skin contact.**Other information (about experimental toxicology):**

Mutagenic effects have been observed on tests with bacteria.

Mutagenic effects have been observed on tests with laboratory animals.

Tumorigenic effects have been observed on tests with laboratory animals.

Additional toxicological information:

Danger through skin absorption.

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

12 Ecological information:**General notes:**

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Do not allow material to be released to the environment without proper governmental permits.

13 Disposal considerations**Product:****Recommendation** Consult state, local or national regulations to ensure proper disposal.**Uncleaned packagings:****Recommendation:** Disposal must be made according to official regulations.**14 Transport information****DOT regulations:****Hazard class:**

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Product name: 1,3-Dichloroacetone

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Identification number: UN2649
Packing group: II
Proper shipping name (technical name): 1,3-DICHLOROACETONE
Label 6.1

Land transport ADR/RID (cross-border)

ADR/RID class: 6.1 (T2) Toxic substances
Danger code (Kemler): 60
UN-Number: 2649
Packaging group: II
Description of goods: 2649 1,3-DICHLOROACETONE

Maritime transport IMDG:

IMDG Class: 6.1
UN Number: 2649
Label 6.1
Packaging group: II
Proper shipping name: 1,3-DICHLOROACETONE

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 6.1
UN/ID Number: 2649
Label 6.1
Packaging group: II
Proper shipping name: 1,3-DICHLOROACETONE

UN "Model Regulation": UN2649, ,3-DICHLOROACETONE, 6.1, II

15 Regulations**Product related hazard informations:****Hazard symbols:**

T+ Very toxic

Risk phrases:

23/24 Toxic by inhalation and in contact with skin.
 28 Very toxic if swallowed.
 36/37/38 Irritating to eyes, respiratory system and skin.
 68 Possible risk of irreversible effects.

Safety phrases:

4 Keep away from living quarters.
 9 Keep container in a well-ventilated place.
 20 When using do not eat or drink.
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 27/28 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.
 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
 43 In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.
 45 In case of accident or if you feel unwell, seek medical advice immediately.
 60 This material and its container must be disposed of as hazardous waste.

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

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Information about limitation of use: For use only by technically qualified individuals.**16 Other information:**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

Department issuing MSDS: Health, Safety and Environmental Department.**Contact:** Zachariah Holt**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 international 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)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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