

ShiJiaZhuang Dowell Chemical Co.,Ltd.

Material Safety Data Sheet

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1 Product details

Name : 3,3-Dimethylbutyric acid

Manufacturer/Supplier:

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Add:NO.388 jianhua N.Street Shijiazhuang City Hebei Province China

2 Composition/information on ingredients

Chemical characterization:

Designation: (CAS#) 3,3-Dimethylbutyric acid (CAS# 1070-83-3): 100%

EINECS Number: 213-982-2

3 Hazards identification

EMERGENCY OVERVIEW

Appearance: clear, colorless liquid. Flash Point: 88 deg C.

Danger! Causes eye and skin burns. Causes digestive and respiratory tract burns. Stench.

Combustible liquid and vapor.

Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

Eye: Causes eye burns.

Skin: Causes skin burns.

Ingestion: Causes gastrointestinal tract burns.

Inhalation: Causes chemical burns to the respiratory tract.

Chronic: No information found.

4 First aid measures

After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

Seek immediate medical advice.

After skin contact :

Instantly 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 doctor.

After swallowing:

Seek immediate medical advice.

5 Fire fighting measures

Suitable extinguishing agents Special hazards caused by the material, its products of combustion or flue gases:

CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

Can be released in case of fire:

Carbon monoxide and carbon dioxide

Protective equipment:

Wear self-contained breathing apparatus.

Wear full protective 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:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

Additional information:

See Section 7 for information on safe handling

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

7 Handling and storage

Handling

Information for safe handling:

Keep containers tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation/exhaustion at the workplace.
Information about protection against explosions and fires:
Keep ignition sources away - Do not smoke.
Storage
Requirements to be met by storerooms and containers:
No special requirements.
Information about storage in one common storage facility:
Store away from oxidizing agents.
Further information about storage conditions:
Keep container tightly sealed.
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 critical 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 should be adhered to in handling the chemicals.

Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

Breathing equipment:

Use breathing protection with high concentrations.

Protection of hands:

Check protective gloves prior to each use for their proper condition.

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.

Eye protection: Safety glasses

Face protection

Body protection: Protective work clothing.

9 Physical and chemical properties:

General Information

Form:

Liquid

Colour:

Colourless

Smell:	Pungent
Change in condition	
Melting point/Melting range:	-8- -6 °C
Boiling point/Boiling range:	185-190 °C
Sublimation temperature / start:	Not determined
Flash point:	88 °C
Ignition temperature:	Not determined
Decomposition temperature:	Not determined
Danger of explosion:	Product is not explosive.
Critical values for explosion:	
Lower:	Not determined
Upper:	Not determined
Steam pressure:	Not determined
Density at 20 °C	0.912 g/cm ³
Solubility in / Miscibility with Water at 22 °C:	3 g/l

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Materials to be avoided:	Oxidizing agents Bases
Dangerous reactions:	No dangerous reactions known
Dangerous products of decomposition:	Carbon monoxide and carbon dioxide

11 Toxicological information

RTECS#:

CAS# 1070-83-3 unlisted.

LD50/LC50:

Not available.

Carcinogenicity:

CAS# 1070-83-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Mutagenicity: No information available.

Neurotoxicity: No information available.

Other Studies:

12 Ecological information:

Additional ecological information:

General notes:

Water hazard class 1 (Self-assessment):

slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

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 for proper disposal.

Hand over to disposers of hazardous waste.

Must be specially treated under adherence to official regulations.

Uncleaned packagings:

Recommendation:

Disposal must be made according to official regulations.

14 Transport information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)

ADR/RID-GGVS/E Class:	8 (C3) Corrosive substances.
Kemler Number:	80
UN-Number:	3265
Packaging group:	III
Label	8
Designation of goods:	3265 CORROSIVE
LIQUID, ACIDIC, ORGANIC, N.O.S. (2,2-Dimethylbutyric acid)	
Limited quantities (LQ)	LQ7
Transport category	3
Tunnel restriction code	E
Maritime transport IMDG/GGVSea:	
IMDG/GGVSea Class:	8
UN Number:	3265
Label	8
Packaging group:	III
EMS Number:	F-A,S-B
Marine pollutant:	No
Segregation groups	Acids
Correct technical name:	CORROSIVE LIQUID,
ACIDIC, ORGANIC, N.O.S. (2,2-Dimethylbutyric acid)	

15 Regulatory information

Designation according to EC guidelines:

Code letter and hazard designation of product:

C Corrosive

Risk phrases:

22 Harmful if swallowed.

34 Causes burns.

Safety phrases:

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

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

National regulations

Information about limitation of use: For use only by technically qualified individuals.

Employment restrictions concerning young persons must be observed.

Water hazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

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.