

**Safety data sheet as per COMMISSION REGULATION (EU) No 453/2010
of 20 May 2010 amending Regulation (EC) No 1907/2006
Product: DTDMAC**



SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Ditallow Dimethyl ammonium chloride

CAS No.: 68783-78-8

EC No.: 272-207-6

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

Relevant identified uses: Surfactant

Uses identified against: no information available

1.3 Details of the supplier of the safety data sheet:

Manufacturer/Supplier:

Prasol Chemicals Ltd.,
Prasol House, Plot No.A-17/2/3,
T.T.C. Indl. Area, Khairne M.I.D.C.,
Navi Mumbai - 400 710
Maharashtra, India.
Tel: +91-22-27782555
Fax: +91-22-27782430

Further information obtainable from:

Mr. Dhaval Parikh

e-mail:sales@prasolchem.com; inquiry@prasolchem.com

Information in case of emergency:

Product safety department Tel: +91-22- 27782555; Fax:+91-22- 27782430

Other Comments (e.g. language(s) of the phone service): English

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP)

Flam. Liq. 3 H226 Flammable liquid and vapour (isopropanol)

Acute Tox. 4 H302 Harmful if swallowed

Skin Irrit. 2 H315 Causes skin irritation

Eye Dam. 1 H318 Causes serious eye damage

Aquatic Acute 1 H400 Very toxic to aquatic life

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects

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



Xn; Irritant

C Corrosive

N Dangerous for the environment

R10 - Flammable

R34 - Causes burns

R41 - Risk of serious damage to eyes

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Information concerning particular hazards for human and environment: Not applicable

2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008 (CLP)

Hazard pictograms



GHS02



GHS05



GHS07



GHS09

Signal word Danger

Hazard-determining components of labeling: Void

Hazard statements

H302 Harmful if swallowed

H314: Causes severe skin burns and eye damage.

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PRASOL

H318 Causes serious eye damage
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P264 Wash thoroughly after handling
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 If eye irritation persists: Get medical advice/attention

2.3 Other hazards

Results of PBT and vPvB assessment: Not applicable

SECTION 3: Composition/information on ingredients

Chemical characterization:

Constituent	CAS No.	Limits (%)
Ditalloy Dimethyl ammonium chloride/ DTDMAC	68783-78-8	74-76
Isopropanol	67-63-0	14-16
Water	7732-18-5	7-11

Additional information:

Molecular Formula: R-NH₂.HCl

Molecular Weight: ~262g/mol

SECTION 4: First aid measures

4.1 General information: Consult a physician. Show this safety data sheet to the doctor in attendance.

After inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

After skin contact: Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

After eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

After swallowing: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Central nervous system depression, Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Blood disorders, Dermatitis, Blurred vision.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

Information for doctor: Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1 Suitable extinguishing agents:

For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, use water spray, fog or foam. Do not use water jet. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

5.2 Special hazards arising from the substance or mixture

5.3 Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Additional information Use water spray to cool unopened containers

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

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6.2 Environmental precautions: Dilute with plenty of water. Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:

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

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations

6.4 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

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Take measures to prevent the buildup of electrostatic charge.

Information about fire - and explosion protection: Keep ignition sources away. Do not smoke.

7.2 Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Information about storage in one common storage facility: Store away from incompatible materials.

Further information about storage conditions: Store away from moisture. Store in cool and dry place.

7.3 Specific end use(s) No further relevant information available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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

Additional information: The lists valid during the making were used as basis.

8.2 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.

Respiratory protection:

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Protection of hands: Protective gloves

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

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.

Eye protection: Tightly sealed goggles

Body protection:

Complete suit protecting against chemicals. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance

: Slightly yellow liquid/ paste

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Odour	: Amine like
Odour threshold	: not determined
pH	: not determined (pK _a 10.6)
Melting point/Melting range	: 32-40°C
Initial Boiling point/Boiling range	: 200-230°C/ 36hPa
Flash point	: 159°C
Evaporation rate	: not determined
Flammability	: non-flammable
Upper/lower flammability or explosive limits	: not applicable
Danger of explosion	: Containers may explode in fire
Vapour pressure at 20°C	: not determined
Vapour density	: not determined
Relative density at 60°C	: 0.79 g/cm ³
Solubility in / Miscibility with water	: 0.12 mg/l at 25 °C
Partition coefficient (n-octanol/water) at 25°C: log Pow	7.1 at 20 °C
Auto-ignition temperature	: no self-ignition up to the melting range
Decomposition temperature	: not determined
Viscosity	: not determined
Explosive properties	: not explosive (structural reasons)
Oxidising properties	: not oxidizing (structural reasons)
9.2 Other information	: no further information

SECTION 10: Stability and Reactivity

10.1 Reactivity No dangerous reactions known.

10.2 Chemical stability

Under storage at normal ambient temperatures (minus 40° C to + 40° C), the product is stable.
No hazardous reaction when handled and stored according to provisions.

10.3 Possibility of hazardous reactions No known hazardous reactions

10.4 Conditions to avoid Heat, flames and sparks.

10.5 Incompatible materials: Strong oxidizing agents, acids

10.6 Hazardous decomposition products: carbon oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

LD50 oral >2000 mg/kg bw/ day rat

Skin corrosion/irritation: corrosive1B (rat)

Serious eye damage/irritation: Severe eye irritation 24 h (rabbit)

Respiratory or skin sensitization: no data

Germ cell mutagenicity: non mutagenic

Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity: OECD 421, rat, oral

STOT-single exposure: Inhalation - May cause respiratory irritation. - Lungs

STOT-repeated exposure: LOAEL 12,5 mg/kg bw/day (oral)

Aspiration hazard: no data available

Additional information: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

LC50 96h 0.88mg/l (Brachydanio rerio)

NOEC 21d 0.013mg/L (Daphnia magna) long term, reproduction

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E_{BC50} 96h 0.007 mg/L (Scenedesmus subspicatus) algae

12.2 Persistence and degradability

Biodegradation readily biodegradable (61% in 28 days)

12.3 Bio accumulative potential. low potential for bioaccumulation Log Kow 7.1

12.4 Mobility in soil no further data

12.5 Results of PBT and vPvB assessment

Low persistence and low bioaccumulation

12.6 Other adverse effects No further relevant information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product:

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging: Disposal must be made according to official regulations.

Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

Land Transport (ADR/RID)

Marine Transport (IMDG)

Air Transport (ICAO/ IATA)

14.1 UN/ID Number: 3175

14.2 UN proper shipping name: Solids containing flammable liquid, n.o.s. (Isopropanol)

14.3 Transport hazard class: 4.1

14.4 Packaging group: II

14.5 Environmental hazards: marine pollutant

14.6 Special precautions for the user:

Danger code (Kemler) : 8

EMS Number : F-A

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: no data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006

Hazard pictograms Please refer section 2

Signal word Danger

Labeling according to EU guidelines:

Code letter and hazard designation of product: Please refer section 2

Risk phrases: Please refer section 2

15.2 Chemical safety assessment A Chemical Safety Assessment has not been carried out and will be applicable at the time of REACH Registration.

Substances of very high concern (SVHC) according to REACH, Article 57 The substance is not listed as SVHC.

SECTION 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:

Product safety department.

Contact:

Tel: +91-22- 27782555

Fax: +91-22- 27782430

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International

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Carriage of Dangerous Goods by Road

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

EbC50: Concentration at which 50% reduction in biomass is observed

EC: European Inventory of Existing Commercial Chemical Substances

EMS: Emergency Schedule

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

IMDG: International Maritime Code for Dangerous Goods

LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

NOEC: No Observed Effect Level

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

Sources

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

ECHA: <http://echa.europa.eu/substance-information/-/substanceinfo/100.065.623>

<http://echa.europa.eu/substance-information/-/substanceinfo/100.057.337>

ChemIDplus: <http://chem.sis.nlm.nih.gov/chemidplus/rn/68783-78-8>

New SDS