2-DIMETHYLAMINO ETHANOL

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
DIMETHYL AMINOETHANOL

OTHER NAMES

C4-H11-NO, dimethylaminoethanol, beta-dimethylaminoethanol, N-dimethylaminoethanol, N -dimethylaminoethanol, "N, N-dimethylaminoethanol", "N, N-dimethylaminoethanol", 2 -dimethylaminoethanol, 2-dimethylaminoethanol, 2-(dimethylamino)ethanol, 2 -(dimethylamino)ethanol, "beta-dimethylaminoethyl alcohol", "N, N-dimethyl-N-(2 -hydroxyethyl)amine", "N, N-dimethyl-N-(2-hydroxyethyl)amine", "N, N-dimethyl-2 -hydroxyethylamine", "N, N-dimethyl-2-hydroxyethylamine", beta-hydroxyethyldimethylamine,

PROPER SHIPPING NAME
2-DIMETHYL-AMINOETHANOL
2-DIMETHYLAMINOETHANOL

PRODUCT USE
Intermediate in the synthesis of dyestuffs, textile auxiliaries, pharmaceuticals, and corrosion inhibitors.
Component of epoxy, amine, and polyamide curing agents.
Stabiliser, coalescing agent in paints and coatings.

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

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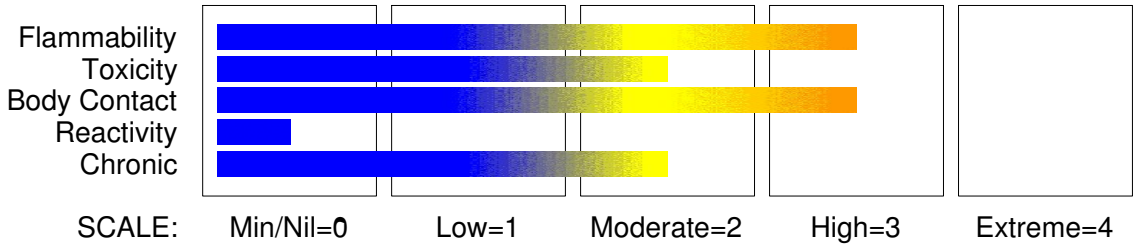


Section 2 - HAZARDS IDENTIFICATION

GHS Classification

Acute Toxicity (Dermal) Category 4
Acute Toxicity (Inhalation) Category 4
Acute Toxicity (Oral) Category 4
Flammable Liquid Category 2
Metal Corrosion Category 1
Skin Corrosion/Irritation Category 1B
Skin Sensitizer Category 1

EMERGENCY OVERVIEW

HAZARD

DANGER
Determined by using GHS criteria:
H225 H332 H312 H302 H317 H290 H314
Highly flammable liquid and vapour
Harmful if inhaled
Harmful in contact with skin
Harmful if swallowed
May cause allergic skin reaction
May be corrosive to metals
Causes severe skin burns and eye damage

PRECAUTIONARY STATEMENTS

Prevention

Avoid breathing dust/fume/gas/mist/vapours/spray.
Wear protective gloves/clothing
Ground/bond container and receiving equipment.
Do not eat, drink or smoke when using this product.
Wash thoroughly after handling.
Wear protective gloves/clothing and eye/face protection.
Wash hands thoroughly after handling.

continued...

Do not breathe dust or mist.
Contaminated clothing should not be allowed out of the workplace.
Keep container tightly closed.
Keep away from heat/sparks/open flame - No smoking.
Use only outdoors or in a well ventilated area.
Wear protective gloves and eye/face protection.
Take precautionary measures against static discharge
Use only non-sparking tools.
Use explosion-proof electrical/ventilating/lighting/equipment

Response

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 SWALLOWED: Rinse mouth. Do NOT induce vomiting.
If skin irritation or rash occurs, seek medical advice/attention.
Wash contaminated clothing before reuse.
Immediately call a POISON CENTER or doctor/physician.
Specific treatment: refer to Label or MSDS.
Absorb spillage to prevent material damage.
If on skin or hair: remove/take off immediately all contaminated clothing. Rinse with water/shower.
Call a POISON CENTER or doctor/physician if you feel unwell.
IF ON SKIN: Gently wash with plenty of soap and water.

Storage

Store locked up.
Store in a corrosive resistant container with a resistant inliner.

Disposal

Dispose of contents and container in accordance with relevant legislation.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
dimethylethanolamine	108-01-0	>98

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.

continued...

Section 4 - FIRST AID MEASURES

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 or hair contact occurs:
· Immediately flush body and clothes with large amounts of water, using safety shower if available.
· Quickly remove all contaminated clothing, including footwear.
· Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.
· Transport to hospital, or doctor.

INHALED

· If fumes or combustion products are inhaled remove from contaminated area.
· Lay patient down. Keep warm and rested.
· Prostheses 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, without delay.

NOTES TO PHYSICIAN

Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

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

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.
· Prevent, by any means available, spillage from entering drains or water course.
· If safe, switch off electrical equipment until vapour fire hazard removed.
· Use water delivered as a fine spray to control fire and cool adjacent area.
· Avoid spraying water onto liquid pools.
· DO NOT approach containers suspected to be hot.
· Cool fire exposed containers with water spray from a protected location.
· If safe to do so, remove containers from path of fire.

continued...

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). ammonia or nitrogen oxides (NOx).

FIRE INCOMPATIBILITY
Avoid contamination with strong oxidising agents as ignition may result.
Avoid contact with nitrocellulose as ignition may result.

Personal Protective Equipment
Breathing apparatus.
Gas tight chemical resistant suit.
Limit exposure duration to 1 BA set 30 mins.

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS
· Remove all ignition sources.
· Clean up all spills immediately.
· Avoid breathing vapours and contact with skin and eyes.
· Control personal contact by using protective equipment.
· Contain and absorb small quantities with vermiculite or other absorbent material.
· Wipe up.
· Collect residues in a flammable waste container.

MAJOR SPILLS
· Clear area of personnel and move upwind.
· Alert Fire Brigade and tell them location and nature of hazard.
· May be violently or explosively reactive.
· Wear breathing apparatus plus protective gloves.
· Prevent, by any means available, spillage from entering drains or water course.
· No smoking, naked lights or ignition sources.
· Increase ventilation.
· Stop leak if safe to do so.
· Water spray or fog may be used to disperse / absorb vapour.
· Contain spill with sand, earth or vermiculite.
· Use only spark-free shovels and explosion proof equipment.
· Collect recoverable product into labelled containers for recycling.
· Absorb remaining product with sand, earth or vermiculite.
· Collect solid residues and seal in labelled drums for disposal.
· Wash area and prevent runoff into drains.
· If contamination of drains or waterways occurs, advise emergency services.

continued...

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS

+	X	X	X	X	+

+: May be stored together
O: May be stored together with specific preventions
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

· Packing as supplied by manufacturer.
· Plastic containers may only be used if approved for flammable liquid.
· Check that containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

Avoid storage with oxidisers.

STORAGE REQUIREMENTS

DO NOT use aluminium, galvanised or tin-plated containers.
DO NOT USE brass or copper containers / stirrers.
· 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.

continued...

· 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

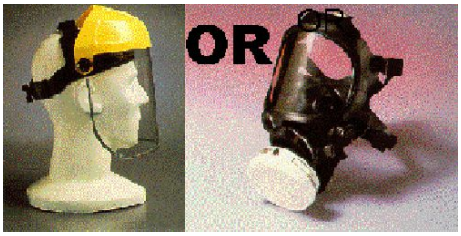
• dimethylethanolamine: CAS:108- 01- 0 CAS:116134- 09- 9 CAS:156681- 25- 3

MATERIAL DATA

ES TWA: 2 ppm, 7.4 mg/m3; STEL 6 ppm, 22 mg/m3
OES TWA: 2 ppm, 7.4 mg/m3; STEL: 6 ppm, 22 mg/m3
MAK: 10 ppm, 50 mg/m3
CEL: 10 ppm, 50 mg/m3

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

· Barrier cream with polyethylene gloves or Butyl rubber gloves Nitrile rubber gloves.
Safety footwear.

OTHER

· Overalls.
· Eyewash unit.
Ensure there is ready access to an emergency shower.

continued...

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: dimethylethanolamine

Protective Material

BUTYL	A
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

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required.
Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Protection Factor	Half- Face Respirator	Full- Face Respirator	Powered Air Respirator
10 x ES	AK- AUS P	-	AK- PAPR- AUS P
50 x ES	-	AK- AUS P	-
100 x ES	-	AK- 2 P	AK- PAPR- 2 P ^

^ - Full-face.

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.
If risk of overexposure exists, wear SAA approved respirator.
Correct respirator fit is essential to obtain adequate protection.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Material is hygroscopic, absorbs moisture from surrounding air.
Colourless flammable liquid; soluble in water. Amine odour.

continued...

Mixes with water, acetone, ether and benzene. Refractive Index: 1.4300

PHYSICAL PROPERTIES
Liquid.
Mixes with water.
Corrosive.

Molecular Weight: 89.16
Melting Range (°C): - 58.8
Solubility in water (g/L): Miscible
pH (1% solution): 11- 12 @ 10%
Volatile Component (%vol): 100
Relative Vapour Density (air=1): 3.1
Lower Explosive Limit (%): 1.6
Autoignition Temp (°C): 220
State: Liquid

Boiling Range (°C): 132.5- 134
Specific Gravity (water=1): 0.89
pH (as supplied): Not applicable
Vapour Pressure (kPa): 0.5320 @ 20 C.
Evaporation Rate: 0.48 BuAc=1
Flash Point (°C): 39
Upper Explosive Limit (%): 11.9
Decomposition Temp (°C): Not available
Viscosity: Not available

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
Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.
The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion.
Considered an unlikely route of entry in commercial/industrial environments.
Aliphatic and alicyclic amines are generally well absorbed from the gut. Corrosive action may cause tissue damage throughout the gastrointestinal tract. Detoxification is thought to occur in the liver, kidney and intestinal mucosa with the enzymes, monoamine oxidase and diamine oxidase (histaminase) having a significant role.

EYE
The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating.
When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation.
Vapours of volatile amines cause eye irritation with lachrymation, conjunctivitis and minor transient corneal oedema which results in "halos" around lights (glaucopsia). This effect disappears spontaneously within a few hours of the end of exposure, and does not

continued...

produce physiological after-effects. Although no detriment to the eye occurs as such, glaucopsia predisposes an affected individual to physical accidents and reduces the ability to undertake skilled tasks such as driving a vehicle.
Direct local contact with the liquid may produce eye damage which may be permanent in the case of the lower molecular weight species.
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 be harmful; systemic effects may result following absorption.
The material can produce chemical burns following direct contact with the skin.
Toxic effects may result from skin absorption.
Bare unprotected skin should not be exposed to this material.
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
Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system in a substantial number of individuals following inhalation.
Inhalation hazard is increased at higher temperatures.
Inhalation of quantities of liquid mist may be extremely hazardous, even lethal due to spasm, extreme irritation of larynx and bronchi, chemical pneumonitis and pulmonary oedema.
Inhalation of amine vapours may cause irritation of the mucous membranes of the nose and throat and lung irritation with respiratory distress and cough. Single exposures to near lethal concentrations and repeated exposures to sublethal concentrations produces tracheitis, bronchitis, pneumonitis and pulmonary oedema. Aliphatic and alicyclic amines are generally well absorbed from the respiratory tract. Systemic effects include headache , nausea, faintness and anxiety. These effects are thought to be transient and are probably related to the pharmacodynamic action of the amines. Histamine release by aliphatic amines may produce bronchoconstriction and wheezing.

CHRONIC HEALTH EFFECTS
There exists limited evidence that shows that skin contact with the material is capable either of inducing a sensitisation reaction in a significant number of individuals, and/or of producing positive response in experimental animals.
Principal routes of exposure are usually by skin contact with the material, skin contact/absorption and inhalation of vapour.
Prolonged or chronic exposure to alkanolamines may result in liver, kidney or nervous system injury. Repeated inhalation may aggravate asthma and inflammatory or fibrotic pulmonary disease.
Results of repeated exposure tests with diethanolamine (DEA) in laboratory animals include anaemia (rats) and effects on the kidneys (rats and mice) and liver (mice). DEA produces nervous system injury in dogs and rats. Heart and salivary gland lesions have also been seen in mice treated cutaneously with DEA and in mice receiving DEA in drinking water. Rats given high doses of DEA developed anaemia and testicular lesions.
Exaggerated doses of DEA produced heart and nervous system effects in other animals.
Changes in other organs were judged to be secondary due to the poor health of animals subjected to extremely high doses of DEA. Rats, rabbits and guinea pigs exposed to high vapour concentrations of volatile monoethanolamine (MEA) (up to 1250 ppm) for periods of up to 5 weeks developed pulmonary, hepatic and renal lesions. Dogs, rats and guinea pigs

continued...

exposed to 100 ppm MEA for 30 days, became apathetic and developed poor appetites. Animal tests also indicate that inhalation exposure to MEA may result in nervous system injury.
All species exposed to airborne MEA experienced dermal effects, varying from ulceration to hair loss probably resulting from contact with the cage.
An increased incidence of skeletal variations, suggestive of a slight developmental delay was seen in the foetuses of rats given 1500 mg/kg/day DEA cutaneously; this also produced significant maternal toxicity. No foetal malformations, however, were seen in rats nor in rabbits receiving identical treatment. The foetus of rats given high doses of MEA by gavage, showed an increased rate of embryofoetal death, growth retardation, and some malformations including hydronephrosis and hydroureter. The high doses required to produce these effects bring into question the relevance of this finding to humans. There is some evidence that embryofoetotoxicity and teratogenicity does not occur in rats when MEA is administered by dermal application to the mother.
The National Toxicology Program (NTP) concluded that there is clear evidence of liver tumours and some evidence of kidney tumours in mice exposed dermally to DEA over their lifetime. Chronic skin painting studies in mice of both sexes produced liver tumours and an increased incidence of kidney tumours in male mice. The significance of these findings to humans is unclear as DEA is neither genotoxic, mutagenic nor clastogenic, and did not induce tumours in rats or transgenic mice similarly treated. Alkanolamines (especially those containing a secondary amine moiety) may react with nitrites or other nitrosating agents to form carcinogenic N-nitrosamines. Alkanolamines are metabolised by biosynthetic routes to ethanolamine and choline and incorporated into phospholipids. They are excreted predominantly unchanged with a half-life of approximately one week. In the absence of sodium nitrite, no conversion to carcinogenic N-nitrosamines was observed.
Diethanolamine competitively inhibits the cellular uptake of choline, in vitro, and hepatic changes in choline homeostasis, consistent with choline deficiency, are observed in vivo.
Many amines are potent skin and respiratory sensitisers and certain individuals especially those described as "atopic" (i.e. those predisposed to asthma and other allergic responses) may show allergic reactions when chronically exposed to alkanolamines.
In a study with coconut diethanolamide, the National Toxicology Program (Technical Report Series 479), showed clear evidence of carcinogenic activity in male B6C3F1 mice based on increased incidences of hepatic and renal tubule neoplasms and in female B6C3F1 mice based on increased incidences of hepatic neoplasms. There was equivocal evidence of carcinogenic activity in female F344/N rats based on a marginal increase in the incidence of renal tube neoplasms. These increases were associated with the concentration of free diethanolamine present as a contaminant in the diethanolamine condensate. Exposure to rats to coconut oil diethanolamine condensate by dermal application in ethanol for 2 years resulted in epidermal hyperplasia, sebaceous gland hyperplasia, hyperkeratosis and parakeratosis in males and females and ulcer in females at the site of application. There were increases in the incidences of chronic inflammation, epithelial hyperplasia, and epithelial ulcer in the forestomach of female rats. The severity of nephropathy in dosed female rats were increased. Exposure of mice to coconut oil diethanolamine condensate by dermal application for 2 years resulted in increased incidences of eosinophilic foci of the liver in males. Increased incidences of epidermal hyperplasia, sebaceous gland hyperplasia, and hyperkeratosis in males and females, ulcer in males, and parakeratosis and inflammation in females at the site of application and of follicular cell hyperplasia in the thyroid gland of males and females, were chemical related.

TOXICITY AND IRRITATION

TOXICITY
Oral (rat) LD50: 2000 mg/kg
Inhalation (rat) LC50: 1641 ppm/4h

IRRITATION
Skin (rabbit): 445 mg(open)- Mild
Eye (rabbit):0.75 mg(open)- SEVERE
Skin (rabbit) LD50: 1370 mg/kg

continued...

Section 12 - ECOLOGICAL INFORMATION

No data for dimethylethanolamine.

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: CORROSIVE,FLAMMABLE LIQUID
HAZCHEM: 2Y

UNDG:

Dangerous Goods Class:	8	Subrisk:	3
UN Number:	2051	Packing Group:	II

Shipping Name:2-DIMETHYL-AMINOETHANOL
2-DIMETHYLAMINOETHANOL

Air Transport IATA:

ICAO/IATA Class:	8	ICAO/IATA Subrisk:	3
UN/ID Number:	2051	Packing Group:	II
ERG Code:	8F		

Shipping name:2-DIMETHYL-AMINOETHANOL
2-DIMETHYLAMINOETHANOL

Maritime Transport IMDG:

IMDG Class:	8	IMDG Subrisk:	3
UN Number:	2051	Packing Group:	II
EMS Number:	F- E, S- C		

Shipping name:2-DIMETHYL-AMINOETHANOL
2-DIMETHYLAMINOETHANOL

continued...

Section 15 - REGULATORY INFORMATION

REGULATIONS

dimethylethanolamine (CAS: 108-01-0) 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

No data available for dimethylethanolamine as CAS: 116134-09-9, CAS: 156681-25-3.

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
dimethylethanolamine	108- 01- 0, 116134- 09- 9, 156681- 25- 3

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.

Issue Date: 22-Mar-2018