N,N-DIMETHYLANILINE

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
N,N-DIMETHYLANILINE

OTHER NAMES

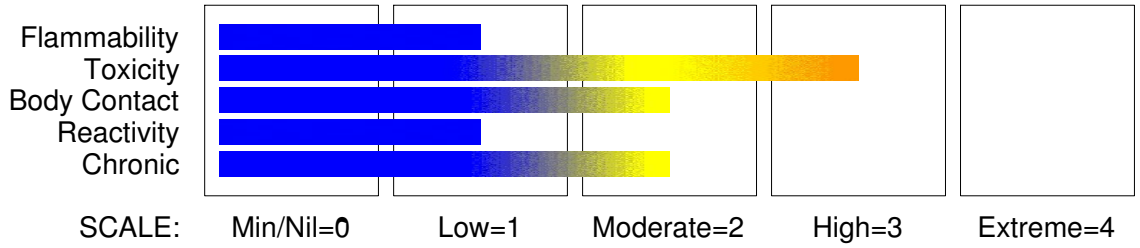
C8-H11-N, C6-H5-N(CH3)2, dimethylaniline, "N, N-dimethyl aniline", "N, N-dimethyl aniline", "N, N-dimethylbenzeneamine", "N, N-dimethylbenzeneamine", dimethylphenylamine, "aniline, N, N-dimethyl", "aniline, N, N-dimethyl", (dimethylamino)benzene, "dimethyl aniline", DMA

PROPER SHIPPING NAME
N,N-DIMETHYLANILINE

PRODUCT USE
Solvent; in manufacture of vanillin, methyl violet, Michler's ketone, and other dyes; reagent for methanol, methyl furfural, hydrogen peroxide, nitrate, alcohol, formaldehyde. Manufacture of stabilizer (acid acceptor). Used with MBTH in a colourimetric peroxidase determination. Reagent in a sensitive procedure using p-anisidine-N,N-dimethylaniline for the catalytic determination of microamounts of ferric and ferrous ions in as little as 10-7 M.

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 3
Acute Toxicity (Inhalation) Category 2
Acute Toxicity (Oral) Category 3
Carcinogen Category 2
Chronic Aquatic Hazard Category 2
Eye Irritation Category 2B
Flammable Liquid Category 4
Skin Corrosion/Irritation Category 3

EMERGENCY OVERVIEW

HAZARD

DANGER
Determined using GHS criteria:
H227 H330 H311 H301 H316 H320 H351 H411
Combustible Liquid
Fatal if inhaled
Toxic in contact with skin
Toxic if swallowed
Causes mild skin irritation
Causes eye irritation
Suspected of causing cancer
Toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENTS

Prevention

Wear protective gloves/clothing
Wash hands thoroughly after handling.
Do not breathe dust/fume/gas/mist/vapours/spray.
Use only outdoors or in a well ventilated area.
Wear respiratory protection.
Do not eat, drink or smoke when using this product.
Use personal protective equipment as required.
Use explosion-proof electrical/ventilating/lighting/equipment
Do not handle until all safety precautions have been read and understood.
Obtain special instructions before use.
Keep away from flames and hot surfaces.

Response

If exposed or concerned: Get medical attention advice.

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IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
If skin irritation occurs, seek medical advice/attention.
If eye irritation persists, get medical advice/attention.
Keep container tightly closed.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER or doctor/physician.
In case of fire, use foam for extinction.
Call a POISON CENTER or doctor/physician if you feel unwell.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
Specific treatment: refer to Label or MSDS.
IF ON SKIN: Gently wash with plenty of soap and water.
Remove/Take off immediately all contaminated clothing
Wash/Decontaminate removed clothing before reuse.

Storage

Store away from other materials
Store locked up.

Disposal

Dispose of contents and container in accordance with relevant legislation.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
N, N- dimethylaniline	121-69-7	>98

Section 4 - FIRST AID MEASURES

SWALLOWED

For advice, contact a Poisons Information Centre or a doctor.
· IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.
· For advice, contact a Poisons Information Centre or a doctor.
Where Medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise:
· Induce vomiting with fingers down the back of the of the throat, ONLY IF CONSCIOUS.
· Lean patient forward or place on left side (head-down position if possible) to maintain open airway and prevent aspiration.
NOTE: Wear a protective glove when inducing vomiting by mechanical means.
· In the mean time, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition.
· If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the MSDS should be provided. Further action will be the responsibility of the medical specialist.
· If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the MSDS.

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

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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.

NOTES TO PHYSICIAN

The material may induce methaemoglobinaemia following exposure.
· Initial attention should be directed at oxygen delivery and assisted ventilation if necessary. Hyperbaric oxygen has not demonstrated substantial benefits.
· Hypotension should respond to Trendelenburg's position and intravenous fluids; otherwise dopamine may be needed.
· Symptomatic patients with methaemoglobin levels over 30% should receive methylene blue. (Cyanosis, alone, is not an indication for treatment). The usual dose is 1-2 mg/kg of a 1% solution (10 mg/ml) IV over 50 minutes; repeat, using the same dose, if symptoms of hypoxia fail to subside within 1 hour.
· Thorough cleansing of the entire contaminated area of the body, including the scalp and nails, is of utmost importance.
BIOLOGICAL EXPOSURE INDEX - BEI
These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

Determinant	Index	Sampling Time	Comment
1. Methaemoglobin in blood	1.5% of haemoglobin	During or end of shift	B, NS, SQ

B: Background levels occur in specimens collected from subjects NOT exposed
NS: Non-specific determinant; also observed after exposure to other materials
SQ: Semi-quantitative determinant - Interpretation may be ambiguous; should be used as a screening test or confirmatory test.

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Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
· Foam.
· Dry chemical powder.
· BCF (where regulations permit).
· Carbon dioxide.
· Water spray or fog - Large fires only.

FIRE FIGHTING
· 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.

FIRE/EXPLOSION HAZARD
· Combustible.
· Slight fire hazard when exposed to heat or flame.
· Heating may cause expansion or decomposition leading to violent rupture of containers.
· On combustion, may emit toxic fumes of carbon monoxide (CO).
· May emit acrid smoke.
· Mists containing combustible materials may be explosive.
Other combustion products include:.
nitrogen oxides (NOx).

FIRE INCOMPATIBILITY
Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. 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 spill with sand, earth, inert material or vermiculite.
· Wipe up.
· Place in a suitable labelled container for waste disposal.

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MAJOR SPILLS

Clear area of personnel and move upwind.

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- 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 or absorb spill with sand, earth or vermiculite.
- Collect recoverable product into labelled containers for recycling.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.
- If contamination of drains or waterways occurs, advise emergency services.

EMERGENCY RESPONSE PLANNING GUIDELINES (ERPG)

The maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour WITHOUT experiencing or developing

life-threatening health effects is:

N,N-dimethylaniline	100 ppm

irreversible or other serious effects or symptoms which could impair an individual's ability to take protective action is:

N,N-dimethylaniline	10 ppm

other than mild, transient adverse effects without perceiving a clearly defined odour is:

N,N-dimethylaniline	10 ppm

The threshold concentration below which most people will experience no appreciable risk of health effects:

N,N-dimethylaniline	5 ppm

American Industrial Hygiene Association (AIHA)

Ingredients considered according to the following cutoffs

Very Toxic (T+)	>= 0.1%	Toxic (T)	>= 3.0%
R50	>= 0.25%	Corrosive (C)	>= 5.0%
R51	>= 2.5%		
else	>= 10%		

where percentage is percentage of ingredient found in the mixture

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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

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Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

· 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.
· DO NOT allow material to contact humans, exposed food or food utensils.
· Avoid smoking, naked lights or ignition sources.
· When handling, DO NOT eat, drink or smoke.
· Avoid contact with incompatible materials.
· Keep containers securely sealed when not in use.
· Avoid physical damage to containers.
· Always wash hands with soap and water after handling.
· Working clothes should be laundered separately. Launder contaminated clothing before re -use.
· Use good occupational work practice.
· Observe manufacturer's storing/handling recommendations.
· Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

SUITABLE CONTAINER

Glass container.
Plastic container.
Plastic drum.
· Metal can or drum
· Packaging as recommended by manufacturer.
· Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

Avoid reaction with oxidising agents.
Avoid strong acids.

STORAGE REQUIREMENTS

· Store in original containers.
· Keep containers securely sealed.
· No smoking, naked lights or ignition sources.
· Store in a cool, dry, well-ventilated area.
· Store away from incompatible materials and foodstuff containers.
· 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

• N, N- dimethylaniline: CAS:121- 69- 7 CAS:171745- 67- 8 CAS:162744- 63- 0 CAS:168153- 21- 7

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EMERGENCY EXPOSURE LIMITS

Material	Revised IDLH Value (mg/m3)	Revised IDLH Value (ppm)
N, N- dimethylaniline		100 [Unch]

ODOUR SAFETY FACTOR (OSF)

OSF=3.8E2 ("N,N-DIMETHYL ANILINE")
Exposed individuals are reasonably expected to be warned, by smell, that the Exposure Standard is being exceeded.
Odour Safety Factor (OSF) is determined to fall into either Class A or B.
The Odour Safety Factor (OSF) is defined as:
OSF= Exposure Standard (TWA) ppm/ Odour Threshold Value (OTV) ppm
Classification into classes follows:

Class	OSF	Description
A	550	Over 90% of exposed individuals are aware by smell that the Exposure Standard (TLV- TWA for example) is being reached, even when distracted by working activities
B	26- 550	As " A" for 50- 90% of persons being distracted
C	1- 26	As " A" for less than 50% of persons being distracted
D	0.18- 1	10- 50% of persons aware of being tested perceive by smell that the Exposure Standard is being reached
E	<0.18	As " D" for less than 10% of persons aware of being tested

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MATERIAL DATA

Odour Threshold Value: 0.001-0.02 ppm (detection),
0.01-0.2 ppm (recognition)

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

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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
Neoprene gloves.
Butyl rubber gloves.
Rubber boots.

OTHER
· Overalls.
· PVC Apron.
· PVC protective suit may be required if exposure severe.
· Eyewash unit.
· Ensure there is ready access to a safety shower.

RESPIRATOR
Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level ppm (volume)	Maximum Protection Factor	Half- face Respirator	Full- Face Respirator
1000	10	AK- AUS	-
1000	50	-	AK- AUS
5000	50	Airline *	-
5000	100	-	AK- 2
10000	100	-	AK- 3
	100+		Airline**

* - Continuous Flow ** - Continuous-flow or positive pressure demand.

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
Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection.
An approved self contained breathing apparatus (SCBA) may be required in some situations.
Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Type of Contaminant: Air Speed:

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solvent, vapours, degreasing etc., evaporating from tank (in still air).	0.25- 0.5 m/s (50- 100 f/min.)
aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)	0.5- 1 m/s (100- 200 f/min.)
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1- 2.5 m/s (200- 500 f/min.)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5- 10 m/s (500- 2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only.	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood- local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Yellow-brown, clear, oily liquid with irritating amine odour.
May darken on storage.
Insoluble in water. Soluble in alcohol, ether, acetone, benzene and chloroform. Alkaline.

PHYSICAL PROPERTIES

Liquid.
Does not mix with water.
Floats on water.
Toxic or noxious vapours/gas.

Molecular Weight: 121.18	Boiling Range (°C): 192- 194
Melting Range (°C): 2.45	Specific Gravity (water=1): 0.96

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Solubility in water (g/L): Immiscible
pH (1% solution): Not applicable.
Volatile Component (%vol): Not available.
Relative Vapour Density (air=1): 4.17
Lower Explosive Limit (%): 1
Autoignition Temp (°C): 371
State: Liquid

pH (as supplied): Not applicable
Vapour Pressure (kPa): 0.13 @ 29.5 C
Evaporation Rate: Not available
Flash Point (°C): 61
Upper Explosive Limit (%): Not available.
Decomposition Temp (°C): Not available
Viscosity: Not available

log Kow (Prager 1995): 2.31
log Kow: 2.31-2.62

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
Toxic effects may result from the accidental ingestion of the material; animal experiments indicate that ingestion of less than 40 gram may be fatal or may produce serious damage to the health of the individual.

EYE
Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.
The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN
Skin contact with the material may produce toxic effects; systemic effects may result following absorption.
Limited evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and

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swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.
Toxic effects may result from skin absorption.
Exposure limits with "skin" notation indicate that vapour and liquid may be absorbed through intact skin. Absorption by skin may readily exceed vapour inhalation exposure. Symptoms for skin absorption are the same as for inhalation. Contact with eyes and mucous membranes may also contribute to overall exposure and may also invalidate the exposure standard.
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
The material is not thought to produce respiratory irritation (as classified by EC Directives using animal models). Nevertheless inhalation, of the material, especially for prolonged periods, may produce respiratory discomfort and occasionally, distress.
Central nervous system (CNS) depression may include nonspecific discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.
The substance and/or its metabolites may bind to haemoglobin inhibiting normal uptake of oxygen. This condition, known as "methaemoglobinemia", is a form of oxygen starvation (anoxia).

Symptoms include cyanosis (a bluish discolouration skin and mucous membranes) and breathing difficulties. Symptoms may not be evident until several hours after exposure.

At about 15% concentration of blood methaemoglobin there is observable cyanosis of the lips, nose and earlobes. Symptoms may be absent although euphoria, flushed face and headache are commonly experienced. At 25-40%, cyanosis is marked but little disability occurs other than that produced on physical exertion. At 40-60%, symptoms include weakness, dizziness, lightheadedness, increasingly severe headache, ataxia, rapid shallow respiration, drowsiness, nausea, vomiting, confusion, lethargy and stupor. Above 60% symptoms include dyspnea, respiratory depression, tachycardia or bradycardia, and convulsions. Levels exceeding 70% may be fatal.

CHRONIC HEALTH EFFECTS
On the basis, primarily, of animal experiments, concern has been expressed that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment.
Principal routes of exposure are by accidental skin and eye contact and by inhalation of vapours especially at higher temperatures.
Severe or chronic poisoning may damage the liver, kidney and blood functions.
Haemotological examinations should be performed to ensure that worker exposure is below acceptable levels. (ILO Encyclopaedia, Sax)

TOXICITY AND IRRITATION

TOXICITY	IRRITATION
Oral (human) LDLo: 50 mg/kg	Skin (rabbit)10 mg/24h(open)- Mild
Oral (rat) LD50: 1410 mg/kg	Skin (rabbit):500 mg/24h - Mild

continued...

Inhalation (rat) LCLo: 250 mg/m³/4h
Dermal (rabbit) LD50: 1770 mg/kg
Eye (rabbit):20 mg/24h - Moderate

Section 12 - ECOLOGICAL INFORMATION

Fish LC50 (96hr.) (mg/l):	78.2
log Kow (Prager 1995):	2.31
log Pow (Verschueren 1983):	2.31/2.62
BOD5:	10%
COD:	96%
ThOD:	2.64
Half- life Soil - High (hours):	4320
Half- life Soil - Low (hours):	672
Half- life Air - High (hours):	21
Half- life Air - Low (hours):	2.7
Half- life Surface water - High (hours):	1925
Half- life Surface water - Low (hours):	19.3
Half- life Ground water - High (hours):	8640
Half- life Ground water - Low (hours):	1344
Aqueous biodegradation - Aerobic - High (hours):	4320
Aqueous biodegradation - Aerobic - Low (hours):	672
Aqueous biodegradation - Anaerobic - High (hours):	17280
Aqueous biodegradation - Anaerobic - Low (hours):	2880
Photooxidation half- life water - High (hours):	1925
Photooxidation half- life water - Low (hours):	19.3
Photooxidation half- life air - High (hours):	21
Photooxidation half- life air - Low (hours):	2.7

log Kow: 2.31-2.62
BOD 5 if unstated: 0.252,10%
COD: 96%
ThOD: 2.64
Toxicity Fish: LC50(96)7.2mg/L

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: TOXIC

continued...

HAZCHEM: 3X

UNDG:

Dangerous Goods Class:	6.1	Subrisk:	None
UN Number:	2253	Packing Group:	II

Shipping Name:N,N-DIMETHYLANILINE

Air Transport IATA:

ICAO/IATA Class:	6.1	ICAO/IATA Subrisk:	None
UN/ID Number:	2253	Packing Group:	II
ERG Code:	6L		

Shipping name:N,N-DIMETHYLANILINE

Maritime Transport IMDG:

IMDG Class:	6.1	IMDG Subrisk:	None
UN Number:	2253	Packing Group:	II
EMS Number:	F- A, S- A		

Shipping name:N,N-DIMETHYLANILINE

Section 15 - REGULATORY INFORMATION

REGULATIONS

N,N-dimethylaniline (CAS: 121-69-7) is found on the following regulatory lists;
International Agency for Research on Cancer (IARC) Carcinogens
International Council of Chemical Associations (ICCA) - High Production Volume List
OECD Representative List of High Production Volume (HPV) Chemicals

No data available for N,N-dimethylaniline as CAS: 171745-67-8, CAS: 162744-63-0, CAS: 168153-21-7.

Section 16 - OTHER INFORMATION

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
N, N- dimethylaniline	121- 69- 7, 171745- 67- 8, 162744- 63- 0, 168153- 21- 7

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: 24-Jun-2017