



Material Safety Data Sheet


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Section 1 - Product and Company Identification

Product name : DT-103	
Other names : --	
Product use : --	
Supplier's name : San Fu Chemical Co., Ltd., Shan Hua Plant	
Supplier's address : 340 Hsiao Hsin Li, Shan Hua Town, Tainan Hsien, Taiwan, R.O.C.	
Supplier's phone : 06-5837608	Emergency phone : 06-5837608
FAX. : 06-5839498	

Section 2 - Hazards Identification

Classification :
<ol style="list-style-type: none">1. Flammable liquid Category 42. Acute toxicity Category 4 (oral)3. Acute toxicity Category 4 (skin)4. Acute toxicity Category 4 (inhalation)5. Skin Corrosion/ irritation Category 1B6. Serious eye damage/ irritation Category 17. Respiratory tract sensitization Category 18. Skin Sensitization Category 19. Reproductive system toxicity Category 1B10. Specific target organ systemic toxicity – single exposure Category 111. Specific target organ systemic toxicity – repeated exposure Category 212. Hazardous to the aquatic environment (acute) Category 3
The Most Important Hazards and effect
Label element :
<ul style="list-style-type: none">■ Hazard symbol : Health Hazards, Corrosion, Exclamation mark <div style="text-align: center;"></div>
<ul style="list-style-type: none">■ Signal word : Danger
Hazard statement :
<ol style="list-style-type: none">1. Combustible liquid2. Harmful if swallowed.3. Harmful in contact with skin.4. Causes severe skin burns and eye damage.5. May cause an allergic skin reaction.6. Harmful if inhaled.7. May cause allergy or asthma symptoms or breathing difficulties if inhaled.8. May damage fertility or the unborn child.9. May cause damage to organs through prolonged or repeated exposure.10. Harmful to aquatic life.11. Causes damage to organs. (Nervous System, Liver)
Precautionary statement :
<ol style="list-style-type: none">1. Obtain special instructions before use.



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2. Do not handle until all safety precautions have been read and understood.
3. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
4. Do not breathe dust/fume/gas/mist/vapours/spray.
5. Wash hands thoroughly after handling.
6. Do no eat, drink or smoke when using this product.
7. Use only outdoors or in a well-ventilated area.
8. Contaminated work clothing should not be allowed out of the workplace.
9. Avoid release to the environment.
10. Wear protective gloves/protective clothing/eye protection/face protection.
11. In case of inadequate ventilation wear respiratory protection.
12. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
13. IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
14. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.
15. Rinse skin with water/shower.
16. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
17. IF IN EYES: Rinse cautiously with water for several minuts. Remove contact lenses, if present and easy to do. Continue rinsing.
19. Immediately call a POISON CENTER or doctor/physician.
20. If skin irritation or rash occurs: Get medical advice/attention.
21. Wash contaminated clothing before reuse.
22. Specific measures (see supplemental first aid instructions on this label).
23. In case of fire, use foam, dry chemical or carbon dioxide.
24. Store in a well-ventilated place. Keep cool.
25. Store locked up.
26. Dispose of contents/container in accordance with local regulation.

Others Hazard : --

Section 3 - Composition/Information on Ingredients

Mixture :

Component or impurities contributing to the hazard	Concentration or concentration range (%)	CAS No.
N,N-Dimethylacetamide	40~60%	127-19-5
Ethanolamine	40~60%	141-43-5

Section 4 - First Aid Measures

The First-aid Information :

■ Inhalation :

1. Remove the contamination or move the patient to the air fresh place.
2. Seek the medical attention immediately.

■ Skin Contact :

1. Avoid contact directly with this substance; wear the impervious gloves if possible.
2. Wash the contaminated place with gentle flowing water for at least 20 minutes.



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<ol style="list-style-type: none">3. Remove contaminated clothing, shoes, and leather product during flushing.4. Seek the medical attention immediately.5. Wash the contaminated clothing, shoes, and leather product before reuse or dispose. <p>■ Eye Contact :</p> <ol style="list-style-type: none">1. In case of contact, immediately flush eyes with gentle water for at least 30 minutes till the contamination is removed. Keep eyelid apart and away from eyeballs during irrigation.2. Avoid the sewage touch the unaffected eye.3. Seek the medical attention immediately. <p>■ Ingestion :</p> <ol style="list-style-type: none">1. Do not induce vomiting.2. Provide large amount of water. (if possible, provide the active carbon paste)3. If the patient loss of consciousness or cramp, don't give any food.4. Seek the medical attention immediately.
The Most Important Symptoms and Hazardous Effects : No information available.
Protection of First-aiders : No information available.
Notes to a Physician : Active carbon paste preparation method: mix well with the active carbon 50g and water 400ml(about 2 cups)

Section 5 - Fire Fighting Measures

Extinguishing Media : foam, chemical powder, CO ₂
Specific Hazards when Fire-fight : Evacuate the staff into the safety area.
Specific Fire-fighting Procedure : No information available.
Specific Protection of Firefighters : Fireman must wear full chemical protective clothing and air breathing apparatus. (wear aluminum mirage protecting coat if necessary)

Section 6 - Accidental Release Measures

Personal Precautions : Wear proper protective equipments
Environmental Precautions : No information available.
Methods for Cleaning up : <ol style="list-style-type: none">1. Plugging.2. Use inert material to absorb the substance (sand, plastic acidic binder, general binder, sawing wood powder)

Section 7 - Handling and Storage

Handling : <ol style="list-style-type: none">1. Avoid inhale this substance.2. Avoid contact with skin, eyes, and cloth.3. Wash the hand immediately before taking a rest and after operating this substance.4. Wash the contaminated clothing before reuse.
Storage : Keep tightly closed. storage area.



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Section 8 - Exposure Controls & Personal Protection

Engineering measures :			
<ol style="list-style-type: none"> 1. Install proper ventilation equipments for aeration. 2. Install the emergency showering and eye washer equipments. 			
Control parameters			
TWA	STEL	Ceiling	Biological standards
N , N Dimethyl Acetamide 10ppm (skin) 36mg/m ³	--	--	--
Ethanalamine 3ppm 7.5mg/m ³	6 ppm		
Personal protective equipment :			
<ul style="list-style-type: none"> ■ Respiratory Protection : If the vapor is generated, required compound air purifying respirator. ■ Hand Protection : Wear rubber gloves. ■ Eye Protection : Wear chemical protective goggles and anti splash mask. ■ Skin and Body Protection : Wear protective clothing with the characteristics mentioned above and rubber boots. 			
Hygiene measures :			
<ol style="list-style-type: none"> 1. Remove contaminated clothes, clean thoroughly before reuse or disposal. Must advise the danger to the laundry worker. 2. Smoking, eating and drinking are prohibited in work area. 3. Wash hands thoroughly after handling this substance. 4. Maintain a clean working environment. 			

Section 9 - Physical & Chemical Properties

Appearance : orange yellow, red liquid	Odor : ammonia smell
Olfactory threshold: --	Melting Point: --
pH value : 12.3	Boiling point/boiling range : --
Flammability: --	Flash point : 79°C
Decomposition temp : > 350 °C	Test method : closed cup
Auto ignition temp : > 355 °C	Explosion properties : --
Vapor pressure : --	Vapor density : --
Density : 0.9738 g/cm ³ (25°C)	Solubility : fully water soluble
log Kow : --	Evaporation Rate : 50~75%

Section 10 - Stability & Reactivity Data

Stability : Stable in the normal condition.
Possible hazardous reactions under specific conditions : No reaction.
Conditions to avoid : >350 °C



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Materials to avoid : --

Hazardous decomposition products : --

Section 11 - Toxicological Information

Route of exposure : Skin, inhalation, ingestion, eyes

Symptoms : Irritation, nausea, vomit, stomachache, coma, skin sensitization.

Immediate Toxicity :

- Inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Skin :
 1. Cause severe skin burn
 2. May cause an allergic skin reaction.
- Eye : Cause eye irritation
- Ingestion : Cause headache, nausea, vomit, gastrointestinal tract irritation, convulsion, coma.
 - LD₅₀: 3000~6000 mg/kg (rat、oral) (N、N Dimethyl Acetamide)
 - LD₅₀: 2240~9600 mg/kg (rat、skin) (N、N Dimethyl Acetamide)
 - LC₅₀: 2.2 mg/L (rat、inhalation) (N、N Dimethyl Acetamide)
 - LD₅₀: 1515~3320 mg/kg (rat、oral) (2-Ethanolamine)
 - LD₅₀: 1025 mg/kg (rat、skin) (2-Ethanolamine)
 - LC₅₀: -- mg/L (rat、inhalation) (2-Ethanolamine)

Specific effects : --

Section 12 - Ecological Information

Ecotoxicology :

- LC₅₀(fish) :
 1. Semi-lethal concentration (LC₅₀) 96 h Fathead minnow 1,500 mg (N、N-Dimethyl Acetamide)
 2. Semi-lethal concentration (LC₅₀) 96 h > 150 mg (2-Ethanolamine)
- EC₅₀(Aquatic Invertebrates) : --
- Bioconcentration factor (BCF) : --

Persistence and degradability : --

- Half-Life (Air) : --
- Half-Life (Water surface) : --
- Half-Life (Groundwater) : --
- Half-Life (Soil) : --

Bioaccumulative potential : --

Mobility in soil : --

Other adverse effects : --

Section 13 - Disposal Considerations

Methods of disposal : In accordance with local and national regulations.



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Section 14 - MSDS Transport Information

UN classification number : 3625
Proper D.O.T Shipping Name : Corrosive liquid, acidic, organic, n.o.s.
Hazard Class : 8
Packing Group : III
Marine pollution : none
Specific precautionary transport measures and conditions : --

Section 15 - Regulatory Information

Regulations :
1. Regulations for Labor Safety and Health Installations
2. Regulations for Chemical Hazard Communication
3. Permissible Exposure Limits of Hazardous Substances in the Work Environment
4. Road Traffic Safety Regulations
5. Industrial Waste Storage and Disposal Regulations and Facility Standards
6. Public Hazardous Materials and Flammable Pressurized Gases Establishment Standards and Safety Control Regulations

Section 16 - Other Information

Literature references	MSDS from manufacturer database		
Prepared by	Supplier : San Fu Chemical Co., Ltd. Shan Hua Plant		
	Address : 340 Hsiao Hsin Li, Shan Hua Town, Tainan Hsien, Taiwan, R.O.C.		
	TEL : 06-5837608		FAX : 06-5839498
	Name : Chunfel Chang		
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Remarks	Symbols Explanations: "--" No information is available at this time. "/" Not applicable to this substance.		
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