Mitsuboshi Chemical

	Safety Data Sheet
1. Identification	
Product name	Ethyl-o-toluidine
Product code	ЕоТ
Manufacturer name	Mitsuboshi Chemical Co., Ltd.
Address	14 Kitanoharacho, Kamigamo, Kita-ku, Kyoto, 606-0806, Japan
Contact	Development and Technical Division
Telephone number	+81-75-781-1177
Emergency telephone number	+81-75-781-1177
FAX number	+81-75-701-7227
2. Hazards identification	
GHS classification	
Physical hazards	
Flammable liquid	Category 4
Environmental hazards	
Aquatic hazard short term	Category 3
Aquatic hazard long term	Category 3
GHS label elements	
Pictograms and hazard	No symbol
symbol	
Signal word	Warning
Hazard statements	Flammable liquid
	Toxic to aquatic life with long-lasting effects
Precautionary statement	
Prevention	Keep away from flames and hot surfaces. –No smoking.
	Avoid release to the environment.
	Wear protective gloves, eye protection, face protection.
First aid measures	In case of fire: Use appropriate fire extinguisher to extinguish.
	Collect spillage.
Storage	Store in a well-ventilated place. Keep container tightly closed.
	Keep cool.
	Store locked up.
Disposal	Dispose of contents / container by a special waste disposal
	contractor who received permission from the local governor.
3. Composition/Information on	
Ingredients	
Substance/ Mixture	Substance
Components	N-Ethyl-2-methylaniline
Synonyms	N-Ethyl-o-toluidine
	N-Ethyl-2-methylbenzeneamine
Concentration	>98.5%

Chemical formula C9H13N CAS number 94-68-8 4. First aid measures If inhaled Call a doctor, if you feel unwell. If on skin Wash with plenty of soap and water. If skin irritation occurs, get medical advice/attention. If in eyes Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If swallowed Call a doctor, if you feel unwell. Rinse mouth. 5. Fire-fighting measures **Extinguishing Media** Foam fire extinguisher, Powder fire extinguisher, Carbon dioxide fire extinguisher, Sand Inappropriate fire extinguisher Concentrated water jet Specific hazard Irritative or toxic fume and gases are generated in a fire. The gas that contains CO and NOx may be generated. Specific fire extinguishing method Stop the supply of the conbustible material, and extiguish the fire by appropriate fire extiguisher. Cool the neighbouring tanks and architectures by water spray to prevent the expansion of fire. Fire extinguishing activities should be done on the windward side of the fire. Prohibit the entry of non-essential personnel to the area of fire. Move the container away from the fire zone if it is not dangerous to do so. Protective equipment and Wear appropriate self-contained breathing apparatus and precautions for fire fighters chemical resistant protective clothing that can protect eyes and skin. 6. Accidental release measures Personal precautions, protective Workers should wear appropriate protective equipment, and equipment emergency should avoid contact with eyes and skin, and inhalation of gas. and procedures Prohibit the entry of non-essential personnel. Environmental precautions Prevent leaked substances from entering surface and ground water in order to avoid impact on the environment. Containment and clean-up Promptly remove all the ignition sources. (Prohibit smoking and methods and materials fireworks in the neighbouring area) Collect spillage to metal- or glass-made container as possible. Move the residual liquid to the safe place by asborption to sand or unreactive absorbent. 7. Handling and storage Handling Engineering control Carry out the measures described in Exposure "8. controls/personal protection" and wear protective equipment.

N-ethyl-o-toluidine

Mitsuboshi Chemical 2 / 5

Revision Date 2020/7/20

Precautions for safe handling	Obtain special instructions before use.
	Do not handle until all safety precautions have been read and
	understood.
	Keep away from heat/ sparks /open flames/ hot surfaces. No
	smoking.
	Avoid breathing dust/ fume/ gas/mist/ vapors/ spray.
	Wash hands thoroughly after handling.
	Do not eat, drink, or smoke when using this product.
	Use only outdoors or in a well- ventilated area.
	Avoid release to the environment.
	Wear protective gloves/ protective clothing/ eye protection/ face
	protection.
	Wear respiratory protection.
	Wash contaminated clothing before reuse.
Avoidance of contact	Please refer to "10. Stability and reactivity".
Storage	
Storage condition	Store in a well-ventilated place. Keep container tightly closed.
Storage condition	Store locked up.
	Keep away from strong oxidizing reagents, food, and feed.
	Ventilate along floor.
Container and peakering	Store in a place that have no access to drain tube or sewer pipe.
Container and packaging	Use a container specified in the Fire Service Law or United
materials	Nations transportation regulations.
8. Exposure control/ Personal	
protection	
protection Control concentration	No setting
protection Control concentration Threshold limit value	-
<b>protection</b> Control concentration Threshold limit value Japan Society for Occupational	No setting No setting
protection Control concentration Threshold limit value Japan Society for Occupational Health	No setting
protection Control concentration Threshold limit value Japan Society for Occupational Health ACGIH	No setting
protection Control concentration Threshold limit value Japan Society for Occupational Health	No setting No setting In the place where the substance is stored and used, provide
protection Control concentration Threshold limit value Japan Society for Occupational Health ACGIH	No setting No setting In the place where the substance is stored and used, provide facilities for eye-washing and a shower for washing the entire
protection Control concentration Threshold limit value Japan Society for Occupational Health ACGIH	No setting No setting In the place where the substance is stored and used, provide facilities for eye-washing and a shower for washing the entire body.
protection Control concentration Threshold limit value Japan Society for Occupational Health ACGIH Facility controls	No setting No setting In the place where the substance is stored and used, provide facilities for eye-washing and a shower for washing the entire
protection Control concentration Threshold limit value Japan Society for Occupational Health ACGIH Facility controls	No setting No setting In the place where the substance is stored and used, provide facilities for eye-washing and a shower for washing the entire body. Install ventilation equipment.
protection Control concentration Threshold limit value Japan Society for Occupational Health ACGIH Facility controls Personnel protective equipment Respiratory protection	No setting No setting In the place where the substance is stored and used, provide facilities for eye-washing and a shower for washing the entire body. Install ventilation equipment. Wear appropriate protective respiratory equipment as possible.
protection Control concentration Threshold limit value Japan Society for Occupational Health ACGIH Facility controls Personnel protective equipment Respiratory protection Hand protection	No setting No setting In the place where the substance is stored and used, provide facilities for eye-washing and a shower for washing the entire body. Install ventilation equipment. Wear appropriate protective respiratory equipment as possible. Wear appropriate protective gloves.
protectionControl concentrationThreshold limit valueJapan Society for OccupationalHealthACGIHFacility controlsPersonnel protective equipmentRespiratory protectionHand protectionEye protection	No setting No setting In the place where the substance is stored and used, provide facilities for eye-washing and a shower for washing the entire body. Install ventilation equipment. Wear appropriate protective respiratory equipment as possible. Wear appropriate protective gloves. Wear appropriate eye protection.
protection         Control concentration         Threshold limit value         Japan Society for Occupational         Health         ACGIH         Facility controls         Personnel protective equipment         Respiratory protection         Hand protection         Eye protection         Skin and body protection	No setting No setting In the place where the substance is stored and used, provide facilities for eye-washing and a shower for washing the entire body. Install ventilation equipment. Wear appropriate protective respiratory equipment as possible. Wear appropriate protective gloves.
protection         Control concentration         Threshold limit value         Japan Society for Occupational         Health         ACGIH         Facility controls         Personnel protective equipment         Respiratory protection         Hand protection         Eye protection         Skin and body protection         9. Physical and chemical	No setting No setting In the place where the substance is stored and used, provide facilities for eye-washing and a shower for washing the entire body. Install ventilation equipment. Wear appropriate protective respiratory equipment as possible. Wear appropriate protective gloves. Wear appropriate eye protection.
protection         Control concentration         Threshold limit value         Japan Society for Occupational         Health         ACGIH         Facility controls         Personnel protective equipment         Respiratory protection         Hand protection         Eye protection         Skin and body protection         9. Physical and chemical         properties	No setting No setting In the place where the substance is stored and used, provide facilities for eye-washing and a shower for washing the entire body. Install ventilation equipment. Wear appropriate protective respiratory equipment as possible. Wear appropriate protective gloves. Wear appropriate eye protection. Wear appropriate protective clothing and face protection.
protectionControl concentrationThreshold limit valueJapan Society for OccupationalHealthACGIHFacility controlsPersonnel protective equipmentRespiratory protectionHand protectionEye protectionSkin and body protection9. Physical and chemicalpropertiesPhysical state, appearance	No setting No setting In the place where the substance is stored and used, provide facilities for eye-washing and a shower for washing the entire body. Install ventilation equipment. Wear appropriate protective respiratory equipment as possible. Wear appropriate protective gloves. Wear appropriate protection. Wear appropriate protective clothing and face protection. Liquid (20°C, 1atm)
protection         Control concentration         Threshold limit value         Japan Society for Occupational         Health         ACGIH         Facility controls         Personnel protective equipment         Respiratory protection         Hand protection         Eye protection         Skin and body protection         9. Physical and chemical         properties         Physical state, appearance         Color	No setting No setting In the place where the substance is stored and used, provide facilities for eye-washing and a shower for washing the entire body. Install ventilation equipment. Wear appropriate protective respiratory equipment as possible. Wear appropriate protective gloves. Wear appropriate eye protection. Wear appropriate protective clothing and face protection. Liquid (20°C, 1atm) Pale yellow or pale brown
protection         Control concentration         Threshold limit value         Japan Society for Occupational         Health         ACGIH         Facility controls         Personnel protective equipment         Respiratory protection         Hand protection         Eye protection         Skin and body protection         9. Physical and chemical         properties         Physical state, appearance         Color         Odor	No setting No setting In the place where the substance is stored and used, provide facilities for eye-washing and a shower for washing the entire body. Install ventilation equipment. Wear appropriate protective respiratory equipment as possible. Wear appropriate protective gloves. Wear appropriate eye protection. Wear appropriate protective clothing and face protection. Liquid (20°C, 1atm) Pale yellow or pale brown Peculiar odor
protection         Control concentration         Threshold limit value         Japan Society for Occupational         Health         ACGIH         Facility controls         Personnel protective equipment         Respiratory protection         Hand protection         Eye protection         Skin and body protection         9. Physical and chemical         properties         Physical state, appearance         Color	No setting No setting In the place where the substance is stored and used, provide facilities for eye-washing and a shower for washing the entire body. Install ventilation equipment. Wear appropriate protective respiratory equipment as possible. Wear appropriate protective gloves. Wear appropriate eye protection. Wear appropriate protective clothing and face protection. Liquid (20°C, 1atm) Pale yellow or pale brown

N-ethyl-o-toluidine

Mitsuboshi Chemical 3 / 5

Boiling point	218℃(GESTIS)
Flammability	Yes
Explosion limit	
Upper limit	5.9 vol.%
Lower limit	1.2 vol.%
Flash point	89 $^\circ\!\mathrm{C}$ (Closed cup, our company's data)
Auto-ignition temperature	445℃
Decomposition temp.	No data
pH	No data
Kinematic viscosity	No data
Solubility	Very slightly soluble in water
	Soluble in alcohol, ether, and aqueous solution of HCI.
Partition coefficient :octanol ⁄ water	2.48(25°C)(GESTIS)
Evaporation rate (Butyl acetate =	No data
1)	
Vapor pressure	1 hPa(20℃)(GESTIS)
Density	0.94
Relative vapor density(air=1)	4.67(GESTIS)
Particle characteristics	Not applicable
10. Stability and reactivity	
Reactivity	No data
Chemical stability	Stable for normal use and storage.
Conditions to avoid	Contact with open- flame, high temperature, incompatible
	substances.
Incompatible substance	Oxidizer, strong acid, especially nitric acid
Hazardous decomposition	Heating causes combustion, harmful fume gas is produced.
products	
11. Toxicological information	
Acute toxicity	
Oral	LD50=2400mg/kg (Rat).
Dermal	No data
Inhalation(vapor)	Exposure of the saturated vapor (0.722mg/L) of this compound
	to rats did not cause the death of them (IUCLID 2000). But that
	is not sufficient data to evaluate .
Inhalation(mist)	No data
Skin corrosion/irritation	The test using rabbits indicated "not irritating" (IUCLID2000).
Serious eye damage/eye irritation	The test using rabbits indicated "not irritating" (IUCLID2000).
Respiratory sensitization	No data
Skin sensitization	No data
Germ sell mutagenicity	No data
Carcinogenicity	No data
Reproduction toxicity	No data
Specific target organ toxicity	No data
(single exposure)	
Specific target organ toxicity	No data
N-ethyl-o-toluidine Mitsub	oshi Chemical <b>4</b> / <b>5</b> Revision Date 2020/7/20

(Repeated exposure)	
Aspiration hazard	No data
12.Ecological information	
Hazard to the aquatic	
Acute hazard	EC50 (Daphnia magna):25.6mg/L/8(48hr) (IUCLID2000) .
Chronic hazard	No data
Hazard to the ozone layer mobility	No data
13.Disposal consideration	
Residual waste	For disposal, follow relevant regulations and local authority standards.
	Dispose of contents / container by a special waste disposal
	contractor who received permission from the local governor.
	When consigning waste to a contractor, be sure to provide
	sufficient notice of hazards and toxicity.
Contaminated packaging	Containers should be cleaned and recycled, or appropriate
	disposal according to relevant laws and local government
	standards.
	When empty containers are discarded, contents should be
	completely removed.
14. Transport information	
International regulations	
UN number	2754
Proper shipping name	N-ETHYLTOLUIDINES
Class	6.1
Packing groupe	II
Marine pollutant	Not applicable
Domestic regulations	Regulations on transport in your region should be checked by
	your own responsibility.
15. Regulatory information	Regulatory information with regard to this substance in your
	country or in your region should be examined by your own
	responsibility.
16. Other information	
References	The original data are indicated in each item.
Disclaimer	

Disclaimer

The content of this SDS was prepared based on currently available materials, and the data and evaluations are not necessarily full and complete, therefore the content must be treated with caution. Moreover, the precautions shown here are for normal handling of the product. If you intend to use the product for special purposes, additional safety measures appropriate to the application and usage may be required.