

AV-101 Catalyst T+

SECTION 1. IDENTIFICATION

Product Identifier	AV-101 Catalyst T+
Other Means of Identification	TRIETHANOLAMINE (TEA) / ACTIVATOR, CAT T+
Recommended Use	Industrial Use Only.
Restrictions on Use	None known.
Manufacturer/Supplier	Avanti International, 822 Bay Star Blvd, Webster, TX, 77598, USA, 281.486.5600, avantigrout.com
Emergency Phone No.	ChemTrec 800.424.9300
Date of Preparation	December 1, 2020

SECTION 2. HAZARD IDENTIFICATION

Classification: Not classified under any hazard class.

Label Elements

Hazard pictogram: None
Signal word: Not applicable
Hazard statements: None

Other Hazards

Other hazards: None known

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers
Triethanolamine	102-71-6	70-90	TEA
Diethanolamine	111-42-2	0.1-0.3	DEA

Occupational exposure limits, if available, are listed in section 8.

SECTION 4. FIRST AID MEASURES

First Aid Measures

General advice: Get medical advice or attention if you feel unwell or are concerned.
Eye contact: Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open.
Skin contact: Rinse with lukewarm, gently flowing water for 5 minutes.
Inhalation: Get medical advice or attention if you feel unwell or are concerned.
Ingestion: Rinse mouth with water.

Most Important Symptoms and Effects, Acute and Delayed

None known.

Immediate Medical Attention and Special Treatment

Medical Conditions None known.
Aggravated by Exposure
Specific treatments Not applicable.

SECTION 5. FIRE FIGHTING MEASURES

Extinguishing Media

Suitable: Use water to keep non-leaking, fire-exposed containers cool.
Unsuitable: None known.

Specific Hazards Arising from the Product

Special hazards: Closed containers may rupture violently when heated releasing contents.
In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide; extremely hazardous hydrogen cyanide; corrosive, oxidizing nitrogen oxides

Special Protective Equipment and Precautions for Firefighters

Protective equipment: Chemical protective clothing (e.g. chemical splash suit) and positive pressure SCBA may be necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Emergency/Non-emergency No special precautions are necessary.
personnel:
Environmental precautions: It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Spills Keep tightly covered. Contact emergency services and manufacturer/supplier for advice.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling: General hygiene considerations: it is good practice to avoid breathing product; avoid skin and eye contact and wash hands after handling.

Conditions for safe storage: Separate from incompatible materials (see Section 10: Stability and Reactivity). Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity). Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	STEL	8-hr TWA	TWA
Triethanolamine	5 mg/m ³					
Diethanolamine			3 ppm/15 mg/m ³			

Appropriate engineering controls:

The hazard potential of this product is relatively low. General ventilation is usually adequate.

Individual Protection Measures

Eyes/face protection: Not required but it is good practice to wear safety glasses or chemical safety goggles.

Skin/hand protection:	Wear chemical protective clothing e.g. gloves, aprons, boots. Suitable materials are butyl rubber, neoprene rubber, nitrile rubber, Viton®, Viton®/butyl rubber.
Body protection:	Wear chemical protective clothing e.g. gloves, aprons, boots. Suitable materials are butyl rubber, neoprene rubber, nitrile rubber, Viton®, Viton®/butyl rubber.
Respiratory protection:	Not required.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance:	Clear liquid. Turns clear yellow on exposure to air. Absorbs moisture from the air. Color darkens on exposure to air. Particle Size: Not available.
Odor:	Ammonia-like
Odor threshold:	Not available
pH:	10.8
Melting/freezing point:	23 °F (-5 °C) (freezing)
Initial boiling point and boiling range:	635 °F (335 °C)
Flash point:	354 °F (179 °C) (closed cup)
Evaporation rate:	Not applicable
Flammability (solid, gas):	Not applicable (liquid)
Upper/lower flammability or explosive limits:	Not applicable (upper); Not applicable (lower)
Vapor pressure:	0.0000005 kPa (0.0000038 mm Hg) at 77 °F (25 °C)
Vapor density: (air=1)	2.5
Relative density: (water=1)	1.108 at 72 °F (22 °C)
Solubility:	Soluble in all proportions in water; Soluble in all proportions in alcohols (e.g. ethanol).
Partition Coefficient, n-Octanol/Water (Log Know)	-1 at 68 °F (20 °C)
Auto-ignition temperature:	662 °F (350 °C)
Decomposition temperature:	392 °F (200 °C)
Viscosity:	Not available (kinematic); 45 centipoises at 25 °C (77 °F) (dynamic)

Other Information

Physical State	Liquid
Molecular Formula	C6H15NO3
Molecular Weight	149.19
Bulk Density	Not available.
Surface Tension	Not available.
Critical Temperature	Not available.
Electrical Conductivity	Not available.
Saturated Vapour Concentration	0.005 ppm at 77 °F (25 °C)

SECTION 10. STABILITY AND REACTIVITY

Reactivity:	Not reactive under normal conditions of use.
Chemical stability:	Normally stable.
Possibility of hazardous reactions:	Reacts violently in the presence of acidic conditions (low pH). Reacts violently in contact with oxidizing materials.
Conditions to avoid:	Acidic conditions (low pH).
Incompatible materials:	Reacts violently with halogenated compounds (e.g. trichloroethylene), organic acids (e.g. acetic acid), oxidizing agents (e.g. peroxides), metals (e.g. aluminum), strong acids (e.g. hydrochloric acid), strong oxidizing agents (e.g. perchloric acid), phenols (e.g. carboric acid). Corrosive to aluminum alloys, copper, copper alloys (e.g. brass and/or bronze).
Hazardous decomposition products:	Very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	Skin contact
Acute Toxicity	111-42-2: Acute oral toxicity LD50 (Rat): Calculated 1,600 mg/kg Assessment: The component/mixture is moderately toxic after single ingestion Oral ATEmix = 12000 mg/kg
Skin corrosion or irritation:	111-42-2: Species: Rabbit Result: Irritating to skin.
Serious eye damage or irritation:	111-42-2: Species: Rabbit Result: Risk of serious damage to eyes
Respiratory and/or skin sensitization:	No information was located.
Skin sensitization:	No information was located.
Aspiration hazard:	Not known to be an aspiration hazard.
Specific Target Organ Toxicity (STOT)	
Single exposure:	Exposure Inhalation: No information was located. Skin Absorption: No information was located. Ingestion: No information was located
Repeated exposure:	111-42-2: Target Organs: Kidney, Blood, Liver Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Diethanolamine	Group 2	Not designated	Not Listed	Not Listed

Reproductive Toxicity	Development of Offspring: No information was located. Sexual Function and Fertility: No information was located. Effects on or via Lactation: No information was located.
Germ Cell Mutagenicity	No information was located.
Interactive Effects	No information was located.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity Component 111-42-2:	Toxicity to daphnia and other aquatic invertebrates EC50 (Ceriodaphnia dubia): 30.1 mg/l Exposure time: 48 h Test Type: static test Toxicity to algae EC50 (Pseudokirchneriella subcapitata (algae)): 86.96 mg/l End point: Growth rate Exposure time: 96 h Test Type: static test Toxicity to fish (Chronic toxicity) NOEC: Calculated > 1 mg/l Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) NOEC (Daphnia magna (Water flea)): 0.78 mg/l Exposure time: 21 d Harmful to aquatic life.
Acute aquatic toxicity-Assessment	
Chronic aquatic toxicity-Assessment	Harmful to aquatic life with long lasting effects.
Persistence and degradability:	No information was located.
Bioaccumulative potential:	No information was located.
Mobility in soil:	Studies are not available.
Other adverse effects:	There is no information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods:	Dispose of contents and container in accordance with local, regional, national, and international regulations. Empty containers retain product residue. Follow label warnings even if container appears to be empty.
Disposal of empty containers:	Do not reuse empty containers. Disposal of empty containers should comply with the requirements of environmental protection, waste disposal legislation and any federal, state, regional and local authority requirements.

SECTION 14. TRANSPORT INFORMATION

Regulatory Information

	UN No.	Proper Shipping Name	Transport Class	Packing Group
DOT	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (DIETHANOLAMINE)	9	III
IMDG	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (DIETHANOLAMINE)	9	III
IATA	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (DIETHANOLAMINE)	9	III

SECTION 15. REGULATORY INFORMATION

United States CERCLA Reportable Quantity

Chemical Name	CAS No.	Component RQ (lbs.)	Calculated Product RQ (lbs.)
Diethanolamine	111-42-2	100	33,336

Toxic Substances Control Act (TSCA) Section 8(b)

Listed on the TSCA Inventory.

California Proposition 65

Warning!

This product contains chemicals known to the state of California to cause cancer, at concentration lower 0.1%. This product contains up to 0.5% of a chemical known to the state of California to cause birth defect or other reproductive harm.

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL.

SECTION 16. OTHER INFORMATION

NFPA Rating: Health - 0 Flammability - 1 Instability - 0

SDS Prepared By: Avanti International

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Revision:

Revision Indicators: Not applicable.

Key to ACGIH® American Conference of Governmental Industrial Hygienists

Abbreviations: NFPA National Fire Protection Association

NIOSH National Institute for Occupational Safety and Health

OSHA US Occupational Safety and Health Administration

RTECS® Registry of Toxic Effects of Chemical Substances

References CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS).