



SAFETY DATA SHEET

MMA Accelerator

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Directives

1. PRODUCT IDENTIFICATION

1.1 TRADE NAME (AS LABELED):

MMA Accelerator

SYNONYMS:

N/A

CAS#:

Mixture

PRODUCT #:

9006665, 9006666

1.2 PRODUCT USE:

Accelerator for MMA products.

CHEMICAL SHIPPING NAME/CLASS:

Toxic Liquid, Organic, n.o.s. (N, N-Dimethyl-p-Toluidine)

U.N. NUMBER:

UN2810

1.3 NORTH AMERICA:

MANUFACTURER'S NAME:

Tennant Company

ADDRESS:

701 North Lilac Drive, P.O. Box 1452, Minneapolis, MN 55440-1452

BUSINESS PHONE:

1-763-540-1200

1.4 EUROPE:

MANUFACTURER'S NAME:

Tennant Benelux N.V.

ADDRESS:

Roderveldaan 3, 2600 Antwerpen, Belgium

BUSINESS PHONE:

+32-3-2179411

EMERGENCY PHONE:

800-424-9300 (Chemtrec U.S. – 24 Hrs)

1-703-537-3887 (Chemtrec Europe – 24 Hrs)

info@tennantco.com

EMAIL:

DATE OF CURRENT REVISION:

January 19, 2019

DATE OF LAST REVISION:

April 27, 2016

2. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is a clear liquid with a slight odor.

Health Hazards: May be toxic in contact with skin, if swallowed or inhaled. Inhalation of vapors or mist may be irritating to the respiratory system.

Flammability Hazards: This product is a combustible liquid with a flash point of 181°F (82.8°C).

Reactivity Hazards: None known

Environmental Hazards: The Environmental effects of this product have not been investigated. Release of this product may have significant adverse effects in the aquatic environment.

US DOT SYMBOLS

CANADA (WHMIS) SYMBOLS

EUROPEAN and (GHS) Hazard Symbols

See Section 14

Complies with WHMIS 2015



Signal Word: **Danger!**

2.1 GHS LABELING AND CLASSIFICATION:

CLASSIFICATION OF SUBSTANCE OR MIXTURE IN ACCORDANCE WITH 29 CFR 1200 (OSHA HCS) AND THE EUROPEAN UNION DIRECTIVES:

This product does meet the definition of a hazardous substance or preparation as defined by 29 CFR 1910. 1200 AND the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

EU HAZARD CLASSIFICATION OF INGREDIENTS PER DIRECTIVE 1272/2008/EC:

Index Number:

EC# 202-805-4 Annex VI Index# 612-056-00-9

Substances not listed either individually or in group entries must be self classified.

Component(s) Contributing to Classification(s)

N, N-Dimethyl-p-Toluidine



SAFETY DATA SHEET

MMA Accelerator

2.2 LABEL ELEMENTS:

GHS Hazard Classification(s):

Flammable Liquid Category 4
Acute Inhalation Toxicity Category 3 (Oral, Inhalation, Dermal)
STOT RE Category 2
Aquatic Chronic Category 3

Hazard Statement(s):

H227: Combustible liquid
H301: Toxic if swallowed
H311: Toxic in contact with skin
H331: Toxic if inhaled
H373: May cause damage to organs through prolonged or repeated exposure.
H412: Harmful to aquatic life with long lasting effects

Prevention Statement(s):

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P264: Wash thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only in a well-ventilated area
P273: Avoid release to the environment.
P280: Wear protective gloves, protective clothing/eye protection/face protection
P260: Do not breathe dust/fume/gas/mist/vapours/spray.

Response Statements:

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P330: Rinse mouth.
P302+P352: IF ON SKIN: Wash with plenty of water.
P361+P364: Take off immediately all contaminated clothing and wash it before reuse.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P311: If experiencing symptoms: Call a POISON CENTER/doctor.
P312: Call a POISON CENTER/doctor if you feel unwell.
P314: Get medical advice/attention if you feel unwell.
P370+P378: In case of fire: Use materials listed in Section 5.1 to extinguish.

Storage Statements:

P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.
P403: Store in a well-ventilated place.

Disposal Statements:

P501: Dispose of contents/container in accordance with local/regional/national/international regulations

2.3 HEALTH HAZARDS OR RISKS FROM EXPOSURE:

SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of overexposure for this product are by contact with skin or eyes, inhalation and ingestion. The symptoms of overexposure are described below.

ACUTE:

INHALATION: TDI vapors or mist at concentrations above the TLV can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat, lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing obstruction). High vapor concentrations may cause central nervous system (CNS) depression as evidenced by giddiness, headache, dizziness, and nausea.

CONTACT WITH SKIN: Isocyanates react with skin protein and moisture and can cause irritation. Prolonged contact can cause reddening, swelling, rash, scaling, blistering, and, in some cases, skin sensitization.

EYE CONTACT: Liquid, aerosols or vapors are severely irritating and can cause pain, tearing, reddening and swelling.

INGESTION: Can result in irritating and corrosive action in the mouth, stomach tissue and digestive tract. Symptoms can include sore throat, abdominal pain, nausea, vomiting and diarrhea.



SAFETY DATA SHEET

MMA Accelerator

CHRONIC: Repeated exposure above current occupational limits may cause an allergic sensitization of the respiratory tract. This is characterized by an asthma-like response upon re-exposure to the chemical. The symptoms may include coughing, wheezing, shortness of breath and chest tightness, and may be fatal. Central nervous system (CNS) impairment leading to unconsciousness.

TARGET ORGANS: Acute: Skin, Respiratory System and Eyes **Chronic:** Skin, Respiratory System

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Ingredients:	WT%	CAS#	EINECS #	Hazard Classification
N, N-Dimethyl-p-Toluidine	90-100%	99-97-8	202-805-4	H373: STOT RE Category 2, H301, H311, H331: Acute Toxicity (Oral, Dermal, Inhalation) Category 3, H412: Aquatic Chronic Category 3
Balance of other ingredients is less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers). Exact concentrations withheld as trade secret.				

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES:

EYE CONTACT: If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention.

SKIN CONTACT: Wash skin thoroughly with soap and water after handling. Seek medical attention if irritation develops and persists.

INHALATION: If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek medical attention.

INGESTION: If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and/or SDS with the victim to the health professional.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Some individuals may develop skin or respiratory sensitization from exposure.

4.2 SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

May be toxic in contact with skin, if swallowed or inhaled. Inhalation of vapors or mist may be irritating to the respiratory system.

4.3 RECOMMENDATIONS TO PHYSICIANS: Treat symptoms and eliminate overexposure.

5. FIRE-FIGHTING MEASURES

5.1 FIRE EXTINGUISHING MATERIALS:

FIRE EXTINGUISHING MATERIALS: Use fire extinguishing methods below:

<u>Water Spray:</u> No	<u>Carbon Dioxide:</u> Yes
<u>Foam:</u> Yes	<u>Dry Chemical:</u> Yes
<u>Halon:</u> No	<u>Other:</u> Any "B" Class

5.2 UNUSUAL FIRE AND EXPLOSION HAZARDS: Decomposes when heated to form highly irritating vapors.

Toxic and flammable vapors may be produced under combustion.

Explosion Sensitivity to Mechanical Impact: No

Explosion Sensitivity to Static Discharge: No

5.3 SPECIAL FIRE-FIGHTING PROCEDURES:

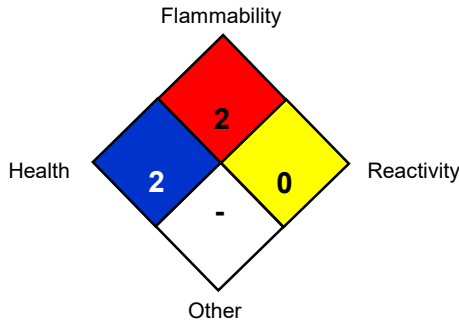
Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.



SAFETY DATA SHEET

MMA Accelerator

NFPA RATING SYSTEM



HMIS RATING SYSTEM

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM			
HEALTH HAZARD (BLUE)	2		
FLAMMABILITY HAZARD (RED)	2		
PHYSICAL HAZARD (YELLOW)	0		
PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8
For Routine Industrial Use and Handling Applications			

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:

See section 8.2 for Exposure Controls.

6.2 ENVIRONMENTAL PRECAUTIONS:

None known

6.3 SPILL AND LEAK RESPONSE: Stop the flow of material, if this can be done safely. Floor may be slippery; use care to avoid falling. Dike and contain the spill with inert material (sand, earth, fuller's earth, etc.) and if appropriate, transfer the liquid and solid diking material to containers for disposal. Remove contaminated clothing promptly and wash affected skin areas with soap and water. Wash clothing before reuse. Keep spill out of all sewers and open bodies of water. Dispose of in accordance with U.S. Federal, State, and local hazardous waste disposal regulations and those of Canada and its Provinces, those of Australia, Japan and EU Member States (see Section 13, Disposal Considerations).

7. HANDLING and STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Use good hygiene practices. As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Use good hygiene practices.

7.2 STORAGE AND HANDLING PRACTICES:

Store in original container. Keep container closed. Store in a cool, dry location. Avoid exposure to ignition sources and incompatible materials. Store inside in a cool (below 100°F or 37.5°C), dry place.

7.3 SPECIFIC USES:

See section 1.2 for details.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

8.1 EXPOSURE PARAMETERS:

Chemical Name	CAS#	ACGIH TLV	OSHA TWA
N, N-Dimethyl-p-Toluidine	99-97-8	Not listed	Not listed

8.2 EXPOSURE CONTROLS:

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.



SAFETY DATA SHEET

MMA Accelerator

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below guidelines listed above. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.

EYE PROTECTION: Safety glasses or chemical splash goggles are required to avoid contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

HAND PROTECTION: Chemical resistant gloves are required to prevent contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

BODY PROTECTION: Use as appropriate to prevent skin contact. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR 1910.136.

9. PHYSICAL and CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE (Physical State) and COLOR: This product is a clear liquid with a slight odor.

ODOR: Slight

ODOR THRESHOLD: Not Available

pH: Not Available

MELTING/FREEZING POINT: Not Available

BOILING POINT: Not Applicable

FLASH POINT: 181°F (82.8°C)

EVAPORATION RATE (n-BuAc=1): Not Available

FLAMMABILITY (SOLID, GAS): Not Applicable

UPPER/LOWER FLAMMABILITY OR EXPLOSION LIMITS: Not Available

VAPOR PRESSURE (mm Hg @ 20°C (68°F): Not Available

VAPOR DENSITY: Not Available

RELATIVE DENSITY: Not Available

DENSITY: Not Available

SPECIFIC GRAVITY: Not Available

SOLUBILITY IN WATER: Not soluble

WEIGHT PER GALLON: Not Available

PARTITION COEFFICIENT (n-octanol/water): Not Available

AUTO-IGNITION TEMPERATURE: Not Available

DECOMPOSITION TEMPERATURE: Not Available

VISCOSITY: Not Available

VOC g/l / Lb/gal: 935

9.2 OTHER INFORMATION:

No additional information available

10. STABILITY and REACTIVITY

10.1 REACTIVITY:

This product is not reactive.

10.2 STABILITY: Stable under conditions of normal storage and use.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: Will not occur under normal conditions but under high temperatures in the presence of alkalis, tertiary amines, and metal compounds will accelerate polymerization.

10.4 CONDITIONS TO AVOID: Temperatures should not exceed 140°F(60°C), the self-accelerating decomposition temperature. Decomposition can be expected to be hazardous and uncontrollable. Under no circumstances should this product be exposed to temperatures of 131°F(55°C). Contact with reducing agents, strong oxidizers, acids, alkalis, accelerators, and metals will also result in hazardous decomposition.

10.5 MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE: Store away from reducing agents, strong oxidizers, acids, alkalis, accelerators, and transition metal salts.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition products are oxides of carbon and biphenyl.



SAFETY DATA SHEET

MMA Accelerator

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

TOXICITY DATA:

No LD50 Data Available

SUSPECTED CANCER AGENT: Ingredients within this product are found on the following lists: FEDERAL OSHA Z LIST, NTP, IARC, or CAL/OSHA and therefore are considered to be, or suspected to be, cancer-causing agents by these agencies.

N, N-Dimethyl-p-Toluidine CAS# 99-97-8

IRRITANCY OF PRODUCT: This product may be irritating to skin, eyes or respiratory system.

SENSITIZATION TO THE PRODUCT: This product is not considered to be a skin and respiratory sensitizer.

REPRODUCTIVE TOXICITY INFORMATION: No information concerning the effects of this product and its components on the human reproductive system.

MUTAGENICITY INFORMATION: This product does not contain a component that is suspected to be a mutagenicity hazard.

SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE: Data not sufficient for classification.

SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE: Prolonged or repeated exposure may cause organ damage.

12. ECOLOGICAL INFORMATION

12.1 TOXICITY:

N, N-Dimethyl-p-Toluidine CAS# 99-97-8:
LC50- 46-52 mg/l 96h

12.2 PERSISTENCE AND DEGRADABILITY:

No specific data available on this product.

12.3 BIOACCUMULATIVE POTENTIAL:

No specific data available on this product.

12.4 MOBILITY IN SOIL:

No specific data available on this product.

12.5 RESULTS OF PBT AND vPvB ASSESSMENT:

No specific data available on this product.

12.6 OTHER ADVERSE EFFECTS:

This product may cause harm to plants, animals or aquatic life.

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

12.7 WATER ENDANGERMENT CLASS:

Not water endangering in accordance with EU Guideline 91/155-EWG.

12.8 SPECIFIC AVAILABLE COMPONENT INFORMATION:

No additional data available

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS:

Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

13.2 EU Waste Code:

Not determined

14. TRANSPORTATION INFORMATION

US DOT, IATA, IMO, ADR:

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS: This product is classified (per 49 CFR 172.101) by the U.S. Department of Transportation, as follows.

BULK SHIPMENTS WITHIN U.S.:

14.1 PROPER SHIPPING NAME:

Toxic Liquid, Organic, n.o.s.(N, N-Dimethyl-p-Toluidine)

14.2 HAZARD CLASS NUMBER and DESCRIPTION:

Class 6, Toxic substances and Infectious substances

14.3 UN IDENTIFICATION NUMBER:

UN2810



SAFETY DATA SHEET

MMA Accelerator

14.4 PACKING GROUP:

III

14.5 DOT LABEL(S) REQUIRED:

Class 6, Toxic substances and Infectious substances

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER: 153

RQ QUANTITY:

NA

14.6 MARINE POLLUTANT: None of the components of this product are designated by the Department of Transportation to be Marine Pollutants (49 CFR 172.101, Appendix B).

14.7 SPECIAL PRECAUTIONS FOR USER:

None

14.8 INTERNATIONAL TRANSPORTATION:

INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA):

PROPER SHIPPING NAME:

Toxic Liquid, Organic, n.o.s.(N, N-Dimethyleyl-p-Toluidine)

HAZARD CLASS NUMBER and DESCRIPTION:

Class 6, Toxic substances and Infectious substances

UN IDENTIFICATION NUMBER:

UN2810

PACKING GROUP:

III

DOT LABEL(S) REQUIRED:

Class 6, Toxic substances and Infectious substances

INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO): This product is considered as dangerous goods.

14.9 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND IBC CODE:

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD

(ADR): This product is considered by the United Nations Economic Commission for Europe to be dangerous goods.

15. REGULATORY INFORMATION

15.1 UNITED STATES REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of this product are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): None

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory or are exempted from listing.

OTHER U.S. FEDERAL REGULATIONS: None

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): Ingredients within this product are on the Proposition 65 Lists.

⚠ WARNING! This product can expose you to chemicals such as N, N-Dimethyleyl-p-Toluidine, which is known to the State of California to cause cancer. For more information, go to WWW.P65Warning.ca.gov.

15.2 CANADIAN REGULATIONS:

CANADIAN DSL/NDL INVENTORY STATUS: The components of this product are on the DSL Inventory, or are exempted from listing.

OTHER CANADIAN REGULATIONS: Not applicable.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Complies with WHMIS 2015.

15.3 EUROPEAN ECONOMIC COMMUNITY INFORMATION:

This product does meet the definition of a hazardous substance or preparation as defined by the European Union Council Directives 67/548/EEC, 1999/45/EC, 1272/2008/EC and subsequent Directives.

See Section 2 for full Details

15.4 AUSTRALIAN INFORMATION FOR PRODUCT: The components of this product are listed on the International Chemical Inventory list.



SAFETY DATA SHEET

MMA Accelerator

15.5 JAPANESE INFORMATION FOR PRODUCT:

JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS: The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

JAPANESE ENCS INVENTORY: The components of this product are on the ENCS Inventory as indicated in the section on International Chemical Inventories, below.

POISONOUS AND DELETERIOUS SUBSTANCES CONTROL LAW: No component of this product is a listed Specified Poisonous Substance under the Poisonous and Deleterious Substances Control Law.

15.6 INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:

Asia-Pac: Listed

Australian Inventory of Chemical Substances (AICS): Listed

Korean Existing Chemicals List (ECL): Listed

Japanese Existing National Inventory of Chemical Substances (ENCS): Listed

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed

Swiss Giftlist List of Toxic Substances: Listed

U.S. TSCA: Listed

16. OTHER INFORMATION

PREPARED BY: Chris Eigbrett – (**MSDS to GHS Compliance**)

DATE OF PRINTING: January 19, 2019

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. Tennant Company assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, Tennant Company assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.

END OF SDS SHEET