



1. Identification

Product identifier	Professor Amos Toilet and Tank Cleaner			
Other means of identification	Not available. Toilet and tank cleaner			
Recommended use				
Recommended restrictions None known.				
Manufacturer/Importer/Supplier	r/Distributor information			
Manufacturer				
Company name	Science Solutions LLC			
Address	825 S. Waukegan Road			
	A8-226 Lake Forest, IL 60045			
	United States			
Telephone	(773) 261-1197			
E-mail	info@sciencesolutionsllc.com			
Emergency phone number	Infotrac Emergency Hotline 1-800-535-5053			
	2. Hazards Identification			
Physical hazards	Not applicable.			
Health hazards	Not applicable.			
Environmental hazards	Not applicable			
OSHA defined hazards	Not applicable.			
Label elements				
Hazard symbol	Not applicable			
Signal word	Not applicable.			
Hazard statement	Not applicable.			
Precautionary statement				
Prevention	Not applicable.			
Response	Not applicable.			
Storage	Not applicable.			
Disposal	Not applicable.			
Hazard(s) not otherwise classified (HNOC)	Not applicable			
Supplemental information	This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission. GHS labeling is not required per 29CFR1910.1200(b)(5)(v). The labeling above applies to industrial/professional products.			
	This SDS is designed for workplace employees, emergency personnel and for other conditions and situations where there is greater potential for large-scale or prolonged exposure. This SDS is not applicable for consumer use of our products. For consumer use, all precautionary and first aid language is provided on the product label in accordance with the applicable government regulations.			
	This product is a consumer product and is labeled in accordance with the US Consumer Product Safety Commission. This product is not subject to 29 CFR HCS 1910.1200 regulations. The following HCS exemption for consumer products apply; 29 CFR 1910.1200(b)(5)(v).			

3. Composition/Information on Ingredients

Mixtures			
Chemical name	Common name and synonyms	CAS number	%
Hydrochloric acid		7647-01-0	5-10
1-Dodecanamine, N,N-dimethyl-,N-oxide		1643-20-5	1-5
Nonylphenol polyethylene glycol ether		127087-87-0	1-5

Chemical name	Common name and synonyms	CAS number	%	
N,N-dimethyl-1-tetradecanamin N-oxide	e,	3332-27-2	0.1-1	
Composition comments	US GHS: The exact percentage (concentration secret in accordance with paragraph (i) of §19		thheld as a trade	
	4. First Aid Measures			
Inhalation	IF INHALED: Remove person to fresh air and POISON CENTER or doctor.	keep comfortable for breathin	g. Immediately call a	
Skin contact	IF ON SKIN (or hair): Take off immediately all Immediately call a POISON CENTER or docto Wash contaminated clothing before reuse.			
Eye contact	IF IN EYES: Rinse cautiously with water for se and easy to do. Continue rinsing. Immediately			
Ingestion	IF SWALLOWED: Rinse mouth. Do NOT inductor.	ce vomiting. Immediately call	a POISON CENTER o	
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms ma include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage includ blindness could result. May cause respiratory irritation.			
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and trea	it symptomatically. Symptoms	may be delayed.	
General information	If you feel unwell, seek medical advice (show the personnel are aware of the material(s) involved this safety data sheet to the doctor in attendant reach of children.	d and take precautions to pro	tect themselves. Show	
	5. Fire Fighting Measure	9S		
Suitable extinguishing media	Treat for surrounding material.			
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this	s will spread the fire.		
Specific hazards arising from the chemical	During fire, gases hazardous to health may be	formed.		
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full pro	otective clothing must be wor	n in case of fire.	
Fire fighting equipment/instructions	Move containers from fire area if you can do se so.	o without risk. In case of fire:	Stop leak if safe to do	
Specific methods	Use standard firefighting procedures and cons	ider the hazards of other invo	lved materials.	
	6. Accidental Release Meas	sures		
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep peo appropriate protective equipment and clothing encapsulating, vapor protective clothing should touch damaged containers or spilled material of Ensure adequate ventilation. Local authorities contained. For personal protection, see section	during clean-up. Do not brea d be worn for spills and leaks unless wearing appropriate pr should be advised if significa	the mist or vapor. Fully with no fire. Do not otective clothing.	
Methods and materials for	Should not be released into the environment.			
containment and cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.			
	Small Spills: Wipe up with absorbent material remove residual contamination.	(e.g. cloth, fleece). Clean surf	ace thoroughly to	
Environmental precautions	Never return spills to original containers for re- Prevent further leakage or spillage if safe to do drains, water courses or onto the ground. Do r waters.	o so. Do not contaminate wate	er. Avoid discharge into	

7. Handling and Storage

 Precautions for safe handling
 DANGER -- CORROSIVE

 Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Keep container tightly closed. Use good industrial hygiene practices in handling this material. When using do not eat or drink.

 Conditions for safe storage, including any incompatibilities
 Store in a cool, dry place out of direct sunlight. Store in corrosive resistant container with a resistant inner liner. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep only in the original container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure Controls/Personal Protection

	8. Exposure controls/Fe	
Occupational exposure limits		
_	s for Air Contaminants (29 CFR 1910.	1000) Value
Components Hydrochloric acid (CAS	Ceiling	7 mg/m3
7647-01-0)	Cening	7 mg/ms
		5 ppm
ACGIH		
Components	Туре	Value
Hydrochloric acid (CAS 7647-01-0)	TWA	2.98 mg/m3
US. ACGIH Threshold Lim	nit Values	
Components	Туре	Value
Hydrochloric acid (CAS 7647-01-0)	Ceiling	2 ppm
US. NIOSH: Pocket Guide	to Chemical Hazards	
Components	Туре	Value
Hydrochloric acid (CAS 7647-01-0)	Ceiling	7 mg/m3
		5 ppm
Biological limit values	No biological exposure limits noted f	for the ingredient(s).
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.	
ndividual protection measure	s, such as personal protective equipr	
Eye/face protection	Wear safety glasses with side shield	ls (or goggles).
Skin protection		
Hand protection	Impervious gloves. Confirm with rep	butable supplier first.
Other	Wear appropriate chemical resistant gloves. As required by employer code.	
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).	
Thermal hazards	Not applicable.	
General hygiene considerations	hygiene measures, such as washing	vay from food and drink. Always observe good personal g after handling the material and before eating, drinking, and/o ning and protective equipment to remove contaminants. Avoid When using do not eat or drink.

9. Physical and Chemical Properties

Appearance	Liquid
Physical state	Liquid.
Form	Liquid.
Color	Green
Odor	Minty
Odor threshold	Not available.
рН	< 2
Melting point/freezing point	Not available.

Initial boiling point and boiling range	Not available.	
Pour point	Not available.	
Specific gravity	Not available.	
Partition coefficient (n-octanol/water)	Not available.	
Flash point	Not available.	
Evaporation rate	< 1 (Water = 1)	
lammability (solid, gas)	Not applicable.	
Jpper/lower flammability or expl	osive limits	
Flammability limit - lower (%)	Not available.	
Flammability limit - upper (%)	Not available.	
Explosive limit - lower (%)	Not available.	
Explosive limit - upper (%)	Not available.	
/apor pressure	Not available.	
/apor density	Not available.	
Relative density	> 1	
Solubility(ies)	Soluble	
Auto-ignition temperature	Not available.	
Decomposition temperature	Not available.	
/iscosity	Not available.	
Other information		
Explosive properties	Not explosive.	
Oxidizing properties	Not oxidizing.	
	10. Stability and Rea	activity
Reactivity	Reacts violently with strong alkaline sub react with strong oxidizing agents.	ostances. May be corrosive to metals. This product may
Possibility of hazardous reactions	No dangerous reaction known under co	nditions of normal use.
Chemical stability	Stable at normal conditions.	
Conditions to avoid	Do not mix with other chemicals.	
ncompatible materials	Bases. Strong oxidizing agents. Reducing	ng agents. Metals. Amines. Peroxides. Phenols.
Hazardous decomposition products	May include and are not limited to: Oxid	les of nitrogen. Oxides of carbon.
	11. Toxicological Info	ormation
nformation on likely routes of ex	-	
Inhalation	May cause irritation to the respiratory sy	/stem.
Skin contact	Causes severe skin burns.	
Eye contact	Causes serious eye damage.	
Ingestion	Causes digestive tract burns.	
Symptoms related to the physical, chemical and toxicological characteristics		damage. Causes serious eye damage. Symptoms may ing, and blurred vision. Permanent eye damage including ratory irritation.
nformation on toxicological effe	cts	
Acute toxicity	Causes burns.	
Components 1-Dodecanamine, N,N-dimethyl-,N-	Species -oxide (CAS 1643-20-5)	Test Results
Acute		
Acute Dermal LD50	Rat	> 2000 mg/kg, ECHA

Components Oral	Species	Test Results
LD50	Rat	1064 mg/kg, ECHA
Hydrochloric acid (CAS 7647-01-0)		
Acute	1	
Dermal		
LD50	Not available	
Inhalation		
LC50	Rat	45.6 mg/L, 5 Minutes, ECHA
		8.3 mg/L, 30 Minutes, ECHA
Oral		3 -, ,
LD50	Not available	
N,N-dimethyl-1-tetradecanamine, N		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg, 24 Hours, ECHA
Inhalation		
LC50	Not available	
Oral		
LD50	Rat	> 1500 mg/kg, ECHA
Nonylphenol polyethylene glycol et	her (CAS 127087-87-0)	
Acute	· · · · · · · · · · · · · · · · · · ·	
Dermal		
LD50	Rabbit	> 2000 mg/kg, Sigma Aldrich
Inhalation		
LC50	Rat	> 1.2 mg/L, 4 h, Sigma Aldrich
Oral		
LD50	Rat	1602 mg/kg, ECHA
Skin corrosion/irritation	Causes severe skin burns and	eve damage.
Exposure minutes	Not available.	, 3
Erythema value	Not available.	
Oedema value	Not available.	
Serious eye damage/eye	Causes serious eye damage.	
irritation	oduses senous eye damage.	
Corneal opacity value	Not available.	
Iris lesion value	Not available.	
Conjunctival reddening	Not available.	
value		
Conjunctival oedema value	Not available.	
Recover days	Not available.	
Respiratory or skin sensitization	I	
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to	o cause skin sensitization.
Germ cell mutagenicity	Non-hazardous by OSHA crite	ria.
Carcinogenicity	See below.	
ACGIH Carcinogens		
Hydrochloric acid (CAS 76	647-01-0) Evaluation of Carcinogenicity	A4 Not classifiable as a human carcinogen.
Hydrochloric acid (CAS 76		Volume 54 - 3 Not classifiable as to carcinogenicity to humans. 001-1052)
Not regulated. US. National Toxicology Pro Not listed.	gram (NTP) Report on Carcino	ogens
Reproductive toxicity	Non-hazardous by OSHA crite	ria.
Specific target organ toxicity -	May cause respiratory irritation	
	.,	

Specific target organ toxicity - repeated exposure	Not classified.		
Aspiration hazard	Not an aspiration hazard.		
Chronic effects	Prolonged inhalation may be harmful.		
Further information	Not available.		
	12. Ecological Info	rmation	
Ecotoxicity		it would be expected to produce significant ecotoxicity upon	
Ecotoxicological data Components	Species	Test Results	
Hydrochloric acid (CAS 7647-01-0)			
Aquatic	_C50 Western mosquitofish (Compusie offinie) 202 mg/L OG bourg	
		Gambusia affinis) 282 mg/L, 96 hours	
Persistence and degradability	No data is available on the degradabili	y of any ingredients in the mixture.	
Bioaccumulative potential			
Partition coefficient n-octand 1-Dodecanamine, N,N-dimethy			
Mobility in soil	No data available.		
Mobility in general	Not available.		
Other adverse effects		e (e.g. ozone depletion, photochemical ozone creation varming potential) are expected from this component.	
	13. Disposal Consid	erations	
Disposal instructions	Consult authorities before disposal. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance with local/regional/national/international regulations.		
Local disposal regulations	Dispose in accordance with all applicat	ole regulations.	
Hazardous waste code	D002: Waste Corrosive material [pH <= The waste code should be assigned in disposal company.	2 or =>12.5, or corrosive to steel] discussion between the user, the producer and the waste	
Waste from residues / unused products		ulations. Empty containers or liners may retain some container must be disposed of in a safe manner (see:	
Contaminated packaging		oduct residue, follow label warnings even after container is aken to an approved waste handling site for recycling or	
	14. Transport Infor	mation	
U.S. Department of Transportation	 on (DOT)		
Basic shipping requirements			
UN number	UN1789		
Proper shipping name	Hydrochloric acid		
Hazard class Packing group			
DOT			
	15. Regulatory Info	rmation	

15. Regulatory Information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) Not regulated.

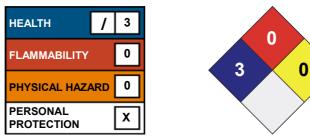
TSCA Chemical Action Plans				
Nonylphenol polyethylene glycol ether (CAS 127087-87-0) CERCLA Hazardous Substance List (40 CFR 302.4)		Plan	(NP) and Nonylphenol Ethoxylates (NPEs) Action	
Hydrochloric acid (CAS 7		Listed.		
SARA 304 Emergency release		Listed.		
Hydrochloric acid (CAS 70		5000 LBS		
OSHA Specifically Regulated		1910.1001-1052)		
Not regulated.				
Superfund Amendments and Rea	authorization Act of 19	86 (SARA)		
SARA 302 Extremely hazardous substance	No			
Classified hazard categories	Corrosive to metal Skin corrosion or irritati Serious eye damage of Specific target organ to	r eye irritation	ted exposure)	
SARA 313 (TRI reporting)	opeone larger organ le	shory (single of repea		
Chemical name		CAS number	% by wt.	
Hydrochloric acid		7647-01-0	5-10	
Other federal regulations				
Clean Air Act (CAA) Section	112 Hazardous Air Pol	llutants (HAPs) List		
Hydrochloric acid (CAS 70 Clean Air Act (CAA) Section	,	ase Prevention (40 C	FR 68.130)	
Hydrochloric acid (CAS 76	647-01-0)			
Safe Drinking Water Act (SDWA)	Not regulated.			
Drug Enforcement Adm Chemical Code Number	inistration (DEA). List 2	2, Essential Chemica	ls (21 CFR 1310.02(b) and 1310.04(f)(2) and	
Hydrochloric acid (CA Drug Enforcement Adm	,	6545 I & 2 Exempt Chemic	al Mixtures (21 CFR 1310.12(c))	
Hydrochloric acid (CA DEA Exempt Chemical M	AS 7647-01-0)	20 %WV		
Hydrochloric acid (C/		6545		
Food and Drug Administration (FDA)	Not regulated.			
US state regulations	See below			
US - Illinois Chemical Sa	afety Act: Listed substa	ance		
Hydrochloric acid (CA US - Louisiana Spill Rep		ce		
Hydrochloric acid (CA	•	Listed.		
US - Minnesota Haz Sub	s: Listed substance			
Hydrochloric acid (CA US - North Carolina Tox	,	HYDROGEN d substance	CHLORIDE	
Hydrochloric acid (CA US. California Controlle	,	artment of Justice (C	alifornia Health and Safety Code Section 11100)	
Not listed. US. Massachusetts RTK	C - Substance List			
Hydrochloric acid (CA				
US. New Jersey Worker	and Community Right-	-to-Know Act		
	/lene glycol ether (CAS 1			
US. Pennsylvania Worke Hydrochloric acid (CA		nt-to-Know Law		
US. Rhode Island RTK				
Hydrochloric acid (CA	AS 7647-01-0)			
California Proposition 65	4 4			
This product is not subjec	t to warning labeling und	ier the California Propo	osition 65 regulation.	
Country(s) or region	Inventory name		On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Cont	trol Act (TSCA) Invent	ory Y	es

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory *A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Disclaimer



The information in the sheet was written based on the best knowledge and experience currently available. The information in the safety data sheet was written by Dell Tech Laboratories Ltd. (www.delltech.com) based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document. 20-April-2022

20-April-2022
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Not available.
For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.
Dell Tech Laboratories Ltd. Phone: (519) 858-5021

Issue date Version # Further information Other information

Prepared by