

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

COMPANY NAME:	AMERICAN INDUSTRIES, INC.	PRODUCT NAME:	TUF STUF
ADDRESS LINE 1:	4300 Kahn Drive, Box 1405	PRODUCT CODE:	2404
ADDRESS LINE 2:	Lumberton, NC 28359-1405 USA	PRODUCT USE:	Ready To Use Industrial Strength Degreaser/Cleaner
TELEPHONE NUMBERS:	800-753-5153 (or) 910-738-7224	SDS FILE ID:	2404.06
EMERGENCY PHONE:	CHEMTREC 1-800-424-9300	SDS DATE:	2023-09-27
		REPLACES MSDS VERSION DATED: 2016-02-23 <i>and all prior revisions</i>	

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification

Health	Skin corrosion/irritation	1
	Serious eye damage/eye irritation	1
	Carcinogenicity	2
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		



Signal word	DANGER
Hazard statements	Causes sever skin burns and eye damage. Causes serious eye damage. Suspected of causing cancer.
Precautionary statements	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist/vapors. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.
Response	IF SWALLOWED: Rinse mouth. Do not induce vomiting. IF ON SKIN (OR HAIR): Remove all contaminated clothing immediately. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	5.78% of the mixture consists of component(s) of unknown acute oral toxicity. 7.31% of the mixture consists of component(s) of unknown acute dermal toxicity. 96.07% of the mixture consists of component(s) of unknown acute inhalation toxicity.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical name</u>	<u>CAS number</u>	<u>%</u>
Diphosphoric acid, tetrapotassium salt (1:4)	7320-34-5	1.6398
Silicic acid (H ₂ SiO ₃), disodium salt (1:2)	6834-92-0	1.5301
Ethanol, 2,2',2''-Nitrilotris-	102-71-6	0.6968
Ethanol, 2,2'-Iminobis-	111-42-2	0.123
Benzaldehyde, 4-Hydroxy-3-Methoxy-	121-33-5	0.0068
Sodium Hydroxide (NA(OH))	1310-73-2	0.0068
Benzaldehyde	100-52-7	0.0014

SECTION 4: FIRST AID MEASURES

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove all contaminated clothing immediately. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, removes clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.
General information	If exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media	Use water fog, foam, dry chemical powder, or Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this 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 protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosions hazards noted.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleanup	Prevent entry into waterways, sewer, basements, or confined areas. Large spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand, or earth and place into containers. Following product recovery, flush area with water. Small spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses, or onto the ground.

SECTION 7: HANDLING AND STORAGE

Handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist/vapors. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Storage	Store locked up. Store in tightly closed container. Store away from incompatible materials (see section 10 of the SDS.)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls	Good general ventilation 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
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	established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.
Personal protective equipment	The following are recommendations for Personnel Protective Equipment (PPE). The employers/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product
Eye/Face protection	Chemical respirator with organic vapor cartridge and full facepiece.
Skin protection	Wear appropriate chemical resistant gloves. Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	Chemical respirator with organic vapor cartridge and full facepiece.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the materials and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Occupational exposure limits

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	CAS #	Value	Type	Form
Sodium Hydroxide (NA(OH))	1310-73-2	2 mg/m3	PEL	
US ACGIH Threshold Limit Values				
Ethanol, 2,2',2''-Nitrilotris-	102-71-6	5 mg/3	TWA	
Ethanol, 2,2'-Iminobis-	111-42-2	1 mg/m3	TWA	Inhalable fraction and vapor
Sodium Hydroxide (NA(OH))	1310-73-2	2 mg/m3	CEILING	

US NIOSH Pocket Guide to Chemical Hazards

Ethanol, 2,2'-Iminobis-	111-42-2	15 mg/m3	TWA	
Sodium Hydroxide (NA(OH))	1310-73-2	2 mg/m3	CEILING	

US Workplace Environmental Exposure Level (WEEL) Guides

Benzaldehyde	100-52-7	17.4 mg/m3	STEL	
		4 PPM		
		8.7 mg/m3	TWA	
Benzaldehyde, 4-Hydroxy-3-Methoxy-	121-33-5	2 ppm		
		10 mg/m3	TWA	

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines

US – California OELs: Skin designation

Ethanol, 2,2'-Iminobis- 111-42-2 Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Ethanol, 2,2'-Iminobis- 111-42-2 Can be absorbed through the skin.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Color	Green liquid
Physical State	Liquid
Odor	Strawberry
Flash point	200°F (93.3°C)
Flammability	Not available.
Partition Coefficient	Not available.
Boiling point	216.07°F (102.26°C)
Melting point/freezing point	Not available.

Auto-ignition temperature	Not available.
Vapor pressure	Not available.
Vapor density (Air-1)	Not available.
Specific gravity	1.05
Viscosity	Not available.
Water solubility	Not available.
pH	>12
Evaporation rate (Water=1)	Not available
Decomp Temp	Not available.
Density	8.77 lbs/gal, 1.05 g/ml
Explosive properties	Not explosive.
Flammability class	Combustible IIIB estimated
Oxidizing properties	Not oxidizing.
Percent volatile	90.77% estimated
VOC	0.06% estimated

SECTION 10: STABILITY AND REACTIVITY

Reactivity	The product is stable and non-reactive under normal conditions of use, storage, and transport.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials
Materials to avoid	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.	
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	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.	
Information on toxicological effects		
Acute toxicity	Not known.	
Benzaldehyde	100-52-7	
Acute toxicity	LD50 Dermal-rabbit	>1,250 mg/kg
	LD50 Oral-rat	1,300 mg/kg
Benzaldehyde, 4-Hydroxy-3-Methoxy	121-33-5	
Acute toxicity	LD50 Oral-rat	1,580 mg/kg
Ethanol, 2,2'-Iminobis	111-42-2	
Acute toxicity	LD50 Oral-rat	710 mg/kg
Silicic acid (H ₂ SiO ₂), Sodium salt (1:2)	6834-92-0	
Acute toxicity	LD50 Oral-rat	1,280 mg/kg
Skin corrosion/irritation	Causes severe skin burns and eye damage.	
Serious eye damage/eye irritation	Causes serious eye damage.	
Respiratory sensitization	Due to partial or complete lack of data the classification is not possible.	
Skin sensitization	Due to partial or complete lack of data the classification is not possible.	

Germ cell mutagenicity	Due to partial or complete lack of data the classification is not possible.
Carcinogenicty	Suspected of causing cancer.
IARC	Ethanol, 2,2',2''-Nitrilotris- (CAS 102-71-6) 3 Not classifiable as to carcinogenicity to humans. Ethanol, 2,2'-Iminobis- (CAS 111-42-2) 2B Possibly carcinogenic to humans.
NTP	Not listed.
OSHA	Not listed.
Reproductive toxicity	Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity, single exposure	Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity, repeated exposure	Due to partial or complete lack of data the classification is not possible.
Aspiration hazard	Due to partial or complete lack of data the classification is not possible.
Chronic effects	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.									
Benzaldehyde	100-52-7									
Toxicity to fish LC50	Bluegill (<i>Lepomis macrochirus</i>)	0.8 – 1.44 mg/l, 96 hours								
Benzaldehyde, 4-Hydroxy-3-Methoxy-	121-33-5									
Toxicity to fish LC50	Fathead minnow (<i>Pimephales promelas</i>)	53 – 61.3 mg/l, 96 hours								
Ethanol, 2,2',2''-Nitrilotris-	102-71-6									
Toxicity to crustacea EC50	Water flea (<i>Ceriodaphnia dubia</i>)	565.2 – 658.3 mg/l, 48 hours								
Toxicity to fish LC50	Fathead minnow (<i>Pimephales promelas</i>)	10,610 – 13,010 mg/l, 96 hours								
Ethanol, 2,2'-Iminobis-	111-42-2									
Toxicity to crustacea EC50	Water flea (<i>Ceriodaphnia dubia</i>)	61.8 – 86.04 mg/l, 48 hours								
Toxicity to fish LC50	Fathead minnow (<i>Pimephales promelas</i>)	100 mg/l, 96 hours								
Sodium Hydroxide (NA(OH))	1310-73-2									
Toxicity to crustacea EC50	Water flea (<i>Ceriodaphnia dubia</i>)	34.59 – 47.13 mg/l, 48 hours								
Toxicity to fish LC50	Western mosquitofish (<i>Gambusia affinis</i>)	125 mg/l, 96 hours								
Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.									
Bio-accumulative potential	<p>Partition coefficient n-octanol/water (log Kow)</p> <table border="0"> <tr> <td>Benzaldehyde</td> <td>1.48</td> </tr> <tr> <td>Benzaldehyde, 4-Hydroxy-3-Methoxy-</td> <td>1.37</td> </tr> <tr> <td>Ethanol, 2,2',2''-Nitrilotris-</td> <td>-1</td> </tr> <tr> <td>Ethanol, 2,2'-Iminobis-</td> <td>-1.43</td> </tr> </table>		Benzaldehyde	1.48	Benzaldehyde, 4-Hydroxy-3-Methoxy-	1.37	Ethanol, 2,2',2''-Nitrilotris-	-1	Ethanol, 2,2'-Iminobis-	-1.43
Benzaldehyde	1.48									
Benzaldehyde, 4-Hydroxy-3-Methoxy-	1.37									
Ethanol, 2,2',2''-Nitrilotris-	-1									
Ethanol, 2,2'-Iminobis-	-1.43									
Mobility in soil	Not available.									
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone create potential, endocrine disruption, global warming potential) are expected from this component.									

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.

Hazardous waste code	D002: Waste Corrosive material [pH <=2 or >=12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer, and the waste disposal company.
Waste from residues/unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions.)
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: TRANSPORT INFORMATION

DOT

Shipping name	SODIUM METASILICATE SOLUTION
Special precautions for user	Read safety instructions, SDS, and emergency procedures before handling.
ERG number	154

Transportation information on packaging may be different from that listed.

SECTION 15: REGULATORY INFORMATION

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

Toxic Substances Control Act (TSCA)

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

CERCLA Hazardous Substance List (40 CFR 302.4)

Ethanol, 2,2'-Iminobis- (CAS 111-42-2) Listed.

Sodium Hydroxide (NA(OH)) (CAS 1310-73-2) Listed.

SARA 304 Emergency release notification Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance Not listed.

SARA 311/312 Hazardous chemical Yes

Classified hazard categories
Skin corrosion or irritation
Serious eye damage or eye irritation
Carcinogenicity

SARA 313 (TRI reporting) Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List Ethanol, 2,2'-Iminobis- (CAS 111-42-2)

Clean Air Act (CAA) Section 112® Accidental Release Prevention (40 CFR 68.130) Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Drug Enforcement Administration (DEA). List 1&2 Exempt Chemical Mixtures (21 CFR 1310.12(c)) Benzaldehyde (CAS 100-52-7) 50% WV

DEA Exempt Chemical Mixtures Code Number Benzaldehyde (CAS 100-52-7) 8256

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace Benzaldehyde (CAS 100-52-7) High priority

State Regulations

California Proposition 65:



WARNING: This product can expose you to Ethanol, 2,2'-Iminobis-, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

California Proposition 65 – CRT: Listed date/Carcinogenic substance

ETHANOL, 2,2'-IMINOBIS- (CAS 111-42-2) Listed: June 22, 2012

US California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3) subd. (a))

ETHANOL, 2,2'-IMINOBIS- (CAS 111-42-2)

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

International Inventories

County or region	Inventory name	On inventory (yes/no)*
Canada	Domestics Substances List (DSL)	Yes
Canada	Non- Domestics Substances List (NDSL)	No
US & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing county(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

SECTION 16: OTHER INFORMATION

Important Note: *To be the best of our knowledge, the information contained herein is accurate. However there is no assumption of liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist. Since the conditions of handling, storage and disposal of this product are beyond the control of the manufacturer/supplier, the manufacturer/supplier will not be responsible for loss, injury, or expense arising out of the products improper use. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product which may not be covered by this SDS. The user is responsible for full compliance.*

End of SDS