

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

ARMEEN TM-97

Version	Revision Date:	US / Z8	Date of last issue: 02/07/2023
2.0	05/15/2025		Date of first issue: 06/09/2014

SECTION 1. IDENTIFICATION

Product name : ARMEEN TM-97

Manufacturer or supplier's details

Company name of supplier : Nouryon Surface Chemistry LLC
100 Matsonford Road, Building 1, Suite 500
Radnor PA 19087
US

Telephone : (800) 906-9977

Telefax : (312) 544-7188

E-mail address :

Emergency telephone : CANUTEC: +1 613-996-6666 CHEMTREC: +1 800-424-9300-:
CHEMTREC (24-hr): (800) 424-9300 (Toll-free in the U.S., Canada and the U.S. Virgin Islands)
CHEMTREC (24-hr): (703) 527-3887 (For calls originating elsewhere / collect calls are accepted)

Recommended use of the chemical and restrictions on use

Recommended use : Surfactant

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity (Oral)	: Category 4
Skin corrosion	: Sub-category 1B
Serious eye damage	: Category 1
Specific target organ toxicity - repeated exposure	: Category 2 (Liver, Gastrointestinal tract, Immune system)
Aspiration hazard	: Category 1
Short-term (acute) aquatic hazard	: Category 1
Long-term (chronic) aquatic hazard	: Category 1

Other hazards

None known.

GHS label elements

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

ARMEEN TM-97

Version 2.0	Revision Date: 05/15/2025	US / Z8	Date of last issue: 02/07/2023 Date of first issue: 06/09/2014
----------------	------------------------------	---------	---

Hazard pictograms :



Signal Word :

Danger

Hazard Statements :

H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H314 Causes severe skin burns and eye damage.
H373 May cause damage to organs (Liver, Gastrointestinal tract, Immune system) through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements :

Prevention:

P260 Do not breathe dust.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves, protective clothing, eye protection and face protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310 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.
P314 Get medical advice/ attention if you feel unwell.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

ARMEEN TM-97

Version 2.0 Revision Date: 05/15/2025 US / Z8 Date of last issue: 02/07/2023
Date of first issue: 06/09/2014

Substance / Mixture : Substance
Substance name : Amines, tallow alkyl

CAS-No. : 61790-33-8

Synonyms : Amines, tallow alkyl

Components

Chemical name	CAS No./Unique ID	Classification	Concentration (% w/w)	Trade secret
Tallowamine	61790-33-8*	Acute Tox. (Oral) 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 STOT RE, (Liver, Gastrointestinal tract, Immune system) 2; H373 Asp. Tox. 1; H304 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 80 - <= 100	TSC

* Indicates that the identifier is a CAS No.

TSC- the actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : Immediate medical attention is required.
Move out of dangerous area.
Show this material safety data sheet to the doctor in attendance.
Burns may occur several hours after the removal of the product.

If inhaled : Obtain medical attention immediately.

In case of skin contact : Take off contaminated clothing and shoes immediately.
Carefully remove paste or solidified product.
Wash skin immediately with 0,5 % acetic acid in water, and then with soap and water.
Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
Skin irritation, if untreated, may be prolonged and serious (e.g., necrosis). This may be prevented by early treatment with medium strength corticosteroids.

In case of eye contact : Rinse immediately with water or, if available, Diphoterine® and then continue by rinsing with plenty of water for as long as possible. Eyelids should be held away from the eyeball to

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

ARMEEN TM-97

Version 2.0	Revision Date: 05/15/2025	US / Z8	Date of last issue: 02/07/2023 Date of first issue: 06/09/2014
----------------	------------------------------	---------	---

	ensure thorough rinsing. Get medical attention immediately. Continue to rinse during transport of patient. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
If swallowed	: Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Take victim immediately to hospital. Do not induce vomiting! May cause chemical burns in mouth and throat.
Most important symptoms and effects, both acute and delayed	: The symptoms and effects are as expected from the hazards as shown in section 2. No specific product related symptoms are known. Harmful if swallowed. May be fatal if swallowed and enters airways. Causes serious eye damage. May cause damage to organs through prolonged or repeated exposure. Causes severe burns.
Notes to physician	: Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	: High volume water jet
Specific hazards during fire fighting	: Treat as oil fire. Do not use a solid water stream as it may scatter and spread fire. Water spray may be ineffective unless used by experienced firefighters. Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: Carbon oxides Nitrogen oxides (NOx)
Further information	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment	: In the event of fire, wear self-contained breathing apparatus.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

ARMEEN TM-97

Version	Revision Date:	US / Z8	Date of last issue: 02/07/2023
2.0	05/15/2025		Date of first issue: 06/09/2014

for fire-fighters

SECTION 6. ACCIDENTAL RELEASE MEASURES

- | | | |
|---|---|---|
| Personal precautions, protective equipment and emergency procedures | : | Use personal protective equipment.
Wear respiratory protection.
Ensure adequate ventilation.
Evacuate personnel to safe areas.
Only qualified personnel equipped with suitable protective equipment may intervene.
Prevent unauthorized persons entering the zone. |
| Environmental precautions | : | Do not flush into surface water or sanitary sewer system.
Discharge into the environment must be avoided. |
| Methods and materials for containment and cleaning up | : | Pick up and arrange disposal without creating dust.
Keep in suitable, closed containers for disposal. |

SECTION 7. HANDLING AND STORAGE

- | | | |
|---|---|--|
| Advice on protection against fire and explosion | : | Provide appropriate exhaust ventilation at places where dust is formed. |
| Advice on safe handling | : | For personal protection see section 8.
Avoid formation of respirable particles.
Do not breathe vapors/dust.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations. |
| Conditions for safe storage | : | Prevent unauthorized access.
Keep container tightly closed in a dry and well-ventilated place.
Avoid elevated temperatures.
Reacts with copper, aluminum, zinc and their alloys |
| Further information on storage stability | : | No decomposition if stored and applied as directed. |

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

- | | | |
|-----------------------------|---|---|
| Engineering measures | : | Provide eyewash station and safety shower. Keep solutions of 0.5% acetic acid in water close at hand. |
|-----------------------------|---|---|

Personal protective equipment

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

ARMEEN TM-97

Version 2.0	Revision Date: 05/15/2025	US / Z8	Date of last issue: 02/07/2023 Date of first issue: 06/09/2014
----------------	------------------------------	---------	---

Respiratory protection	:	In the case of dust, vapor or aerosol formation use respirator with an approved filter. Wear full face mask supplied with: Combination filter: ABEKP.
Hand protection	:	
Material	:	Nitrile rubber
Material	:	butyl-rubber
Eye protection	:	Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	:	Protective suit
Hygiene measures	:	Avoid contact with skin, eyes and clothing. When using do not eat or drink. When using do not smoke. Dry-clean contaminated clothing before reuse.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	solid
Color	:	light yellow
Odor	:	ammoniacal
Odor Threshold	:	No data available
pH	:	Not applicable
Melting point/freezing point	:	104 °F / 40 °C
Boiling point/boiling range	:	Not applicable
Flash point	:	212 - 390 °F / 100 - 199 °C Method: closed cup
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	The product is not flammable.
Flammability (liquids)	:	Not applicable
Self-ignition	:	No data available
Upper explosion limit / Upper flammability limit	:	Not applicable

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

ARMEEN TM-97

Version 2.0	Revision Date: 05/15/2025	US / Z8	Date of last issue: 02/07/2023 Date of first issue: 06/09/2014
----------------	------------------------------	---------	---

Lower explosion limit / Lower flammability limit	:	Not applicable
Vapor pressure	:	< 1 hPa (68 °F / 20 °C)
Relative vapor density	:	Not applicable
Relative density	:	No data available
Density	:	0.814 g/cm ³ (100 °F / 38 °C)
Solubility(ies)		
Water solubility	:	insoluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	Not applicable
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	Not applicable
Viscosity, kinematic	:	ca. 4.9 mm ² /s (140 °F / 60 °C)
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under normal conditions.
Chemical stability	:	Stable under recommended storage conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	:	Extremes of temperature and direct sunlight.
Incompatible materials	:	Reacts with copper, aluminum, zinc and their alloys
Hazardous decomposition products	:	No hazardous decomposition products are known.
Thermal decomposition	:	No data available

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

ARMEEN TM-97

Version	Revision Date:	US / Z8	Date of last issue: 02/07/2023
2.0	05/15/2025		Date of first issue: 06/09/2014

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Harmful if swallowed.

Components:

Tallowamine:

Acute oral toxicity	:	LD50 (Rat): > 300 - 2,000 mg/kg
		Method: OECD Test Guideline 401
		GLP: yes

Skin corrosion/irritation

Causes severe burns.

Components:

Tallowamine:

Species	:	Rabbit
Method	:	OECD Test Guideline 404
Result	:	Causes burns.

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

Tallowamine:

Species	:	Rabbit
Result	:	Risk of serious damage to eyes.
Method	:	OECD Test Guideline 405
Remarks	:	Read-across (Analogy)

Respiratory or skin sensitization

Skin sensitization

Not classified due to lack of data.

Respiratory sensitization

Not classified due to lack of data.

Components:

Tallowamine:

Test Type	:	Maximization Test
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Does not cause skin sensitization.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

ARMEEN TM-97

Version	Revision Date:	US / Z8	Date of last issue: 02/07/2023
2.0	05/15/2025		Date of first issue: 06/09/2014

Remarks : Read-across (Analogy)

Germ cell mutagenicity

Not classified due to lack of data.

Carcinogenicity

Not classified due to lack of data.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified due to lack of data.

STOT-single exposure

Not classified due to lack of data.

STOT-repeated exposure

May cause damage to organs (Liver, Gastrointestinal tract, Immune system) through prolonged or repeated exposure.

Components:

Tallowamine:

Target Organs	:	Liver, Gastrointestinal tract, Immune system
Assessment	:	May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

May be fatal if swallowed and enters airways.

Components:

Tallowamine:

May be fatal if swallowed and enters airways.

Further information

Product:

Remarks : No further data available.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

ARMEEN TM-97

Version	Revision Date:	US / Z8	Date of last issue: 02/07/2023
2.0	05/15/2025		Date of first issue: 06/09/2014

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Tallowamine:

- | | | |
|---|---|--|
| Toxicity to fish | : | LC50 (Pimephales promelas (fathead minnow)): > 0.01 - 0.1 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
Remarks: Read-across (Analogy) |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 0.01 - 0.1 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: Read-across (Analogy) |
| Toxicity to algae/aquatic plants | : | EC50 (Scenedesmus subspicatus (algae)): > 0.01 - 0.1 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Read-across (Analogy) |
| M-Factor (Acute aquatic toxicity) | : | 10 |
| M-Factor (Chronic aquatic toxicity) | : | 10 |

Persistence and degradability

Components:

Tallowamine:

- | | | |
|---------------------------------|---|--|
| Biodegradability | : | Result: Readily biodegradable.
Method: OECD Test Guideline 301D |
| Biochemical Oxygen Demand (BOD) | : | Remarks: No data available |

Bioaccumulative potential

Components:

Tallowamine:

- | | | |
|-----------------|---|--------------------------------------|
| Bioaccumulation | : | Bioconcentration factor (BCF): > 500 |
|-----------------|---|--------------------------------------|

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

ARMEEN TM-97

Version	Revision Date:	US / Z8	Date of last issue: 02/07/2023
2.0	05/15/2025		Date of first issue: 06/09/2014

Mobility in soil

Components:

Tallowamine:

Mobility : Remarks: Can be leached out from soil.

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Components:

Tallowamine:

Results of PBT and vPvB assessment : This substance is not considered to be a PBT (Persistent, Bioaccumulation, Toxic) This substance is not considered to be vPvB (very Persistent nor very Bioaccumulating)

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	: The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local regulation. Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Contaminated packaging	: Empty remaining contents. Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

ARMEEN TM-97

Version	Revision Date:	US / Z8	Date of last issue: 02/07/2023
2.0	05/15/2025		Date of first issue: 06/09/2014

UN number	:	UN 3259
Proper shipping name	:	AMINES, SOLID, CORROSIVE, N.O.S. (Alkylamine)
Class	:	8
Packing group	:	II
Labels	:	8
Environmentally hazardous	:	yes

IATA-DGR

UN/ID No.	:	UN 3259
Proper shipping name	:	Amines, solid, corrosive, n.o.s. (Alkylamine)
Class	:	8
Packing group	:	II
Labels	:	Corrosives
Packing instruction (cargo aircraft)	:	863
Packing instruction (passenger aircraft)	:	859
Environmentally hazardous	:	yes

IMDG-Code

UN number	:	UN 3259
Proper shipping name	:	AMINES, SOLID, CORROSIVE, N.O.S. (Alkylamine)
Class	:	8
Packing group	:	II
Labels	:	8
EmS Code	:	F-A, S-B
Marine pollutant	:	yes

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number	:	UN 3259
Proper shipping name	:	Amines, solid, corrosive, n.o.s. (Alkylamine)
Class	:	8
Packing group	:	II
Labels	:	CORROSIVE
ERG Code	:	154
Marine pollutant	:	yes(Alkylamine)
Reportable Quantity	:	This product does not contain an environmentally hazardous substance per 49 CFR 172.101, Appendix A.
Remarks	:	Tank transport: UN 3259, AMINES, SOLID, CORROSIVE, N.O.S., MOLTEN

Special precautions for user

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

ARMEEN TM-97

Version	Revision Date:	US / Z8	Date of last issue: 02/07/2023
2.0	05/15/2025		Date of first issue: 06/09/2014

Remarks : Tank transport:, UN 3259, AMINES, SOLID, CORROSIVE, N.O.S., MOLTEN

The transport classification(s) provided herein are for informational purposes only. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Acute toxicity (any route of exposure)
Specific target organ toxicity (single or repeated exposure)
Aspiration hazard
Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals subject to disclosure and listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

ARMEEN TM-97

Version	Revision Date:	US / Z8	Date of last issue: 02/07/2023
2.0	05/15/2025		Date of first issue: 06/09/2014

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

TCSI	: On the inventory, or in compliance with the inventory
TSCA	: All substances listed as active on the TSCA inventory
AIIC	: On the inventory, or in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL
ENCS	: On the inventory, or in compliance with the inventory
ISHL	: On the inventory, or in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
NZIoC	: Not in compliance with the inventory
TECI	: On the inventory, or in compliance with the inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Further information

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

ARMEEN TM-97

Version
2.0

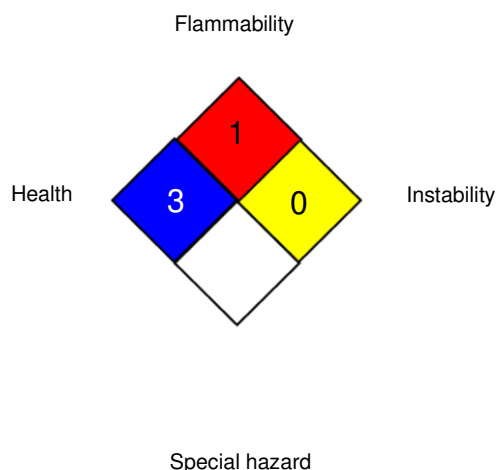
Revision Date:
05/15/2025

US / Z8

Date of last issue: 02/07/2023

Date of first issue: 06/09/2014

NFPA 704:



HMIS® IV:

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concern-

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard

ARMEEN TM-97

Version	Revision Date:	US / Z8	Date of last issue: 02/07/2023
2.0	05/15/2025		Date of first issue: 06/09/2014

ing the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECl - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 05/15/2025

This material safety datasheet only contains information relating to safety and does not replace any product information or product specification.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

US / Z8