



RILSAN® KMVO TL

1. PRODUCT AND COMPANY IDENTIFICATION**Company**

Arkema Inc.
900 First Avenue
King of Prussia, Pennsylvania 19406

Specialty Polyamides

Customer Service Telephone Number: (800) 932-0420
(Monday through Friday, 8:00 AM to 5:00 PM EST)

Emergency Information

Transportation: CHEMTREC: (800) 424-9300
(24 hrs., 7 days a week)
Medical: Rocky Mountain Poison Center: (866) 767-5089
(24 hrs., 7 days a week)

Product Information

Product name: RILSAN® KMVO TL
Synonyms: Not available
Molecular formula: (C₁₁H₂₃NO₂)_x
Chemical family: polyamide
Product use: Mouldings and Extrusion

2. HAZARDS IDENTIFICATION**Emergency Overview**

Color: translucent
Physical state: solid
Form: pellets
Odor: odourless

***Classification of the substance or mixture:**

Reproductive toxicity, Category 2, H361

*For the full text of the H-Statements mentioned in this Section, see Section 16.

RILSAN® KMVO TL**GHS-Labeling**

Hazard pictograms:



Signal word:

Warning**Hazard statements:**

H361 : Suspected of damaging fertility or the unborn child.

Supplemental Hazard Statements:

Processing may release vapors and/or fumes which cause eye, skin and respiratory tract irritation.

Precautionary statements:**Prevention:**

P201 : Obtain special instructions before use.

P202 : Do not handle until all safety precautions have been read and understood.

P281 : Use personal protective equipment as required.

Response:

P308 + P313 : IF exposed or concerned: Get medical advice/ attention.

Storage:

P405 : Store locked up.

Disposal:

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

Supplemental information:**Potential Health Effects:**

Contains high molecular weight polymer(s). Effects due to processing releases: Irritating to eyes, respiratory system and skin.

Prolonged or repeated exposure may cause: headache, drowsiness, nausea, weakness, (severity of effects depends on extent of exposure).

Other:

RILSAN® KMVO TL

This product may release fume and/or vapor of variable composition depending on processing time and temperature.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No.	Wt/Wt	GHS Classification**
Undecanoic acid, 11-amino-, homopolymer	25587-80-8	> 98 %	Not classified
Decanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidiny) ester	52829-07-9	< 0.3 %	H330, H318, H361, H400, H411

**For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1. Description of necessary first-aid measures:

Inhalation:

If inhaled, remove victim to fresh air.

Skin:

In case of contact, immediately flush skin with plenty of water. If molten polymer gets on the skin, cool rapidly with cold water. Do not peel solidified product off the skin. Obtain medical treatment for thermal burns. Remove material from clothing. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eyes:

Immediately flush eye(s) with plenty of water. Obtain medical treatment for thermal burns.

Ingestion:

If swallowed, DO NOT induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person.

4.2. Most important symptoms/effects, acute and delayed:

For most important symptoms and effects (acute and delayed), see Section 2 (Hazard Statements and Supplemental Information if applicable) and Section 11 (Toxicology Information) of this SDS.

4.3. Indication of immediate medical attention and special treatment needed, if necessary:

Product code: A63149

Version 3.3

Issued on: 05/14/2021

Page: 3 / 12

RILSAN® KMVO TL

Unless otherwise noted in Notes to Physician, no specific treatment noted; treat symptomatically.

5. FIREFIGHTING MEASURES**Extinguishing media (suitable):**

Water spray, Carbon dioxide (CO₂), Foam

Protective equipment:

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand / NIOSH approved or equivalent).

Further firefighting advice:

Fire fighting equipment should be thoroughly decontaminated after use.

Fire and explosion hazards:

When burned, the following hazardous products of combustion can occur:

Carbon oxides

Nitrogen oxides (NO_x)

Hydrogen cyanide (hydrocyanic acid)

(traces)

Hazardous organic compounds

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, Emergency procedures, Methods and materials for containment/clean-up:**

Prevent further leakage or spillage if you can do so without risk. Ventilate the area. Sweep up and shovel into suitable properly labeled containers for prompt disposal. Possible fall hazard – floor may become slippery from leakage/spillage of product. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Protective equipment:

Appropriate personal protective equipment is set forth in Section 8.



RILSAN® KMVO TL

7. HANDLING AND STORAGE**Handling****General information on handling:**

Do not taste or swallow.
Avoid breathing dust.
Avoid breathing fumes or vapors.
Avoid contact with skin, eyes and clothing.
Keep container closed.
Use only with adequate ventilation.
Wash thoroughly after handling.
Emptied container retains product residue.
Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

Storage**General information on storage conditions:**

Keep in a dry, cool place. Store in closed containers, in a secure area to prevent container damage and subsequent spillage. Store away from moisture and heat to maintain the technical properties of the product.

Storage stability – Remarks:

Stable under normal conditions.

Storage incompatibility – General:

None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Airborne Exposure Guidelines:****Engineering controls:**

Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

Respiratory protection:

Avoid breathing dust. Avoid breathing fumes or vapors. Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components (full facepiece recommended). Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

SAFETY DATA SHEET



RILSAN® KMVO TL

Skin protection:

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Rinse immediately if skin is contaminated. Wash contaminated clothing and clean protective equipment before reuse. Wash thoroughly after handling.

Eye protection:

Where eye contact may be likely, wear chemical goggles and have eye flushing equipment available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	translucent
Physical state:	solid
Form:	pellets
Odor:	odourless
Odor threshold:	No data available
Flash point	No data available
Lower flammable limit (LFL):	Not applicable
Upper flammable limit (UFL):	Not applicable
pH:	No data available
Density:	No data available
Specific Gravity (Relative density):	No data available
Bulk density:	No data available
Boiling point/boiling range:	No data available
Melting point/range:	347 - 374 °F (175 - 190 °C)
Freezing point:	No data available
Evaporation rate:	No data available
Solubility in water:	Negligible
Viscosity, dynamic:	No data available

Product code: A63149

Version 3.3

Issued on: 05/14/2021

Page: 6 / 12

RILSAN® KMVO TL

Oil/water partition coefficient: (No data available)

Thermal decomposition: > 662 °F (350 °C)

Flammability: See GHS Classification in Section 2 if applicable

10. STABILITY AND REACTIVITY**Stability:**

This material is chemically stable under normal and anticipated storage, handling and processing conditions.

Hazardous reactions:

Hazardous polymerization does not occur.

Materials to avoid:

None known.

Conditions / hazards to avoid:

Store protected from moisture and heat. (to maintain the technical properties of the product). See Hazardous Decomposition Products below.

Hazardous decomposition products:

Thermal decomposition giving toxic, flammable, and / or corrosive products:

Carbon oxides

Nitrogen oxides (NO_x)

Ammonia

Amine derivatives

Hydrogen cyanide (hydrocyanic acid)

(traces)

Hazardous organic compounds

11. TOXICOLOGICAL INFORMATION

Data on this material and/or its components are summarized below.

Data for RILSAN® KMVO TL**Acute toxicity****Oral:**

Practically nontoxic. Acute toxicity estimate > 5,000 mg/kg.

Inhalation:

Practically nontoxic. 4 h Acute toxicity estimate > 10 mg/l. (dust/mist)

Data for Undecanoic acid, 11-amino-, homopolymer (25587-80-8)

RILSAN® KMVO TL

Acute toxicity**Oral:**

No deaths occurred. (rat) LD₀ > 2,000 mg/kg.

Dermal:

No deaths occurred. (rat) LD₀ > 2,000 mg/kg.

Skin Irritation:

Not irritating. (In vitro)

Eye Irritation:

Not corrosive (Bovine cornea)

Skin Sensitization:

Not a sensitizer. LLNA: Local Lymph Node Assay. (Mouse) No skin allergy was observed.

Repeated dose toxicity

Subchronic dietary administration to rat, dog / No adverse systemic effects reported.

Genotoxicity**Assessment in Vitro:**

No genetic changes were observed in laboratory tests using: bacteria

Other information

The information presented is from representative materials with this Chemical Abstract Service (CAS) Registry number. The results vary depending on the size and composition of the test substance.

Data for Decanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (52829-07-9)**Acute toxicity****Oral:**

May be harmful if swallowed. (rat) LD₅₀ = 3,700 mg/kg.

Dermal:

No deaths occurred. (rat) LD₀ > 3,170 mg/kg.

Inhalation:

Fatal if inhaled. (rat) 4 h LC₅₀ = 0.5 mg/l. (dust/mist)

Skin Irritation:

Practically non-irritating. (rabbit)

Eye Irritation:

Causes serious eye damage. (rabbit)

Skin Sensitization:

Not a sensitizer. Guinea pig maximization test. No skin allergy was observed.

Repeated dose toxicity

RILSAN® KMVO TL

Subchronic dietary administration to rat / signs: decreased growth rate

Subchronic dietary administration to Dog / affected organ(s): liver / signs: changes in organ structure or function, decreased growth rate

Genotoxicity

Assessment in Vitro:

No genetic changes were observed in laboratory tests using: bacteria, animal cells, human cells

Reproductive effects

Reproduction test. oral (rat) / No toxicity to reproduction.

Extended One-Generation Reproductive Toxicity Study. dietary (rat) / Suspected of damaging fertility / (Preimplantation loss, reduction in pup survival, reductions in birth weight)

Human experience

Skin contact:

Skin: Severe irritation. (studied using human volunteers)

Some cases of cutaneous sensitization reported. (studied using human volunteers)

12. ECOLOGICAL INFORMATION

Chemical Fate and Pathway

Data on this material and/or its components are summarized below.

Data for Decanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (52829-07-9)

Biodegradation:

Not readily biodegradable. (28 d) biodegradation 24 %

Octanol Water Partition Coefficient:

log Pow: = 0.35, at 77 °F (25 °C) pH = 7

Ecotoxicology

Data on this material and/or its components are summarized below.

Data for Decanedioic acid, bis(2,2,6,6-tetramethyl-4-piperidinyl) ester (52829-07-9)

Aquatic toxicity data:

Toxic. Lepomis macrochirus (Bluegill sunfish) 96 h LC50 = 4.4 mg/l

Aquatic invertebrates:

Toxic. Daphnia magna (Water flea) 48 h EC50 = 8.58 mg/l

Algae:

Very toxic. Pseudokirchneriella subcapitata (green algae) 72 h EC50 = 0.705 mg/l

Microorganisms:

Respiration inhibition / Activated sludge 3 h IC50 > 100 mg/l (Nominal concentration)

SAFETY DATA SHEET



RILSAN® KMVO TL

Chronic toxicity to aquatic invertebrates:

Toxic. Daphnia magna (Water flea) 21 d NOEC (Reproduction inhibition) = 0.23 mg/l

Chronic toxicity to aquatic plants:

Toxic. Pseudokirchneriella subcapitata (green algae) 72 h EC10 (reproduction) = 0.188 mg/l

13. DISPOSAL CONSIDERATIONS**Waste disposal:**

Where possible recycling is preferred to disposal or incineration. If recycling is not an option, incinerate or dispose of in accordance with federal, state, and local regulations. Pigmented, filled and/or solvent laden product may require special disposal practices in accordance with federal, state and local regulations. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

14. TRANSPORT INFORMATION

US Department of Transportation (DOT): not regulated

International Maritime Dangerous Goods Code (IMDG): not regulated

15. REGULATORY INFORMATION**Chemical Inventory Status**

United States TSCA Inventory	TSCA	The components of this product are all on the Active TSCA Inventory.
Canadian Domestic Substances List (DSL)	DSL	All components of this product are on the Canadian DSL
China. Inventory of Existing Chemical Substances in China (IECSC)	IECSC (CN)	Conforms to
Japan. ENCS - Existing and New Chemical Substances Inventory	ENCS (JP)	Conforms to
Japan. ISHL - Inventory of Chemical Substances	ISHL (JP)	Conforms to
Korea. Korean Existing Chemicals Inventory (KECI)	KECI (KR)	Conforms to
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	PICCS (PH)	Conforms to
Australia Inventory of Chemical Substances (AICS)	AICS	Conforms to

Product code: A63149

Version 3.3

Issued on: 05/14/2021

Page: 10 / 12

SAFETY DATA SHEET



RILSAN® KMVO TL

United States – Federal Regulations

SARA Title III – Section 302 Extremely Hazardous Chemicals:

The components in this product are either not SARA Section 302 regulated or regulated but present in negligible concentrations.

SARA Title III - Section 311/312 Hazard Categories:

Chronic Health Hazard

SARA Title III – Section 313 Toxic Chemicals:

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.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantity (RQ):

The components in this product are either not CERCLA regulated, regulated but present in negligible concentrations, or regulated with no assigned reportable quantity.

United States – State Regulations

New Jersey Right to Know

No components are subject to the New Jersey Right to Know Act.

Pennsylvania Right to Know

<u>Chemical name</u>	<u>CAS-No.</u>
Undecanoic acid, 11-amino-, homopolymer	25587-80-8

California Prop. 65

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

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H318 Causes serious eye damage.
H330 Fatal if inhaled.
H361 Suspected of damaging fertility or the unborn child.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Latest Revision(s):

Reference number:	200013799
Date of Revision:	05/14/2021
Date Printed:	05/15/2021

Product code: A63149

Version 3.3

Issued on: 05/14/2021

Page: 11 / 12

SAFETY DATA SHEET



RILSAN® KMVO TL

RILSAN® is a registered trademark of Arkema Inc.

The statements, technical information and recommendations contained herein are believed to be accurate as of the date hereof. Since the conditions and methods of use of the product and of the information referred to herein are beyond our control, ARKEMA expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information;

NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE GOODS DESCRIBED OR THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be applicable when such product is used in combination with other materials or in any process. The user should thoroughly test any application before commercialization. Nothing contained herein constitutes a license to practice under any patent and it should not be construed as an inducement to infringe any patent and the user is advised to take appropriate steps to be sure that any proposed use of the product will not result in patent infringement. See SDS for Health & Safety Considerations.

Arkema has implemented a Medical Policy regarding the use of Arkema products in Medical Devices applications that are in contact with the body or circulating bodily fluids (<http://www.arkema.com/en/social-responsibility/responsible-product-management/medical-device-policy/index.html>) Arkema has designated Medical grades to be used for such Medical Device applications. Products that have not been designated as Medical grades are not authorized by Arkema for use in Medical Device applications that are in contact with the body or circulating bodily fluids. In addition, Arkema strictly prohibits the use of any Arkema products in Medical Device applications that are implanted in the body or in contact with bodily fluids or tissues for greater than 30 days. The Arkema trademarks and the Arkema name shall not be used in conjunction with customers' medical devices, including without limitation, permanent or temporary implantable devices, and customers shall not represent to anyone else, that Arkema allows, endorses or permits the use of Arkema products in such medical devices.

It is the sole responsibility of the manufacturer of the medical device to determine the suitability (including biocompatibility) of all raw materials, products and components, including any medical grade Arkema products, in order to ensure that the final end-use product is safe for its end use; performs or functions as intended; and complies with all applicable legal and regulatory requirements (FDA or other national drug agencies) It is the sole responsibility of the manufacturer of the medical device to conduct all necessary tests and inspections and to evaluate the medical device under actual end-use requirements and to adequately advise and warn purchasers, users, and/or learned intermediaries (such as physicians) of pertinent risks and fulfill any postmarket surveillance obligations. Any decision regarding the appropriateness of a particular Arkema material in a particular medical device should be based on the judgment of the manufacturer, seller, the competent authority, and the treating physician.

Product code: A63149

Version 3.3

Issued on: 05/14/2021

Page: 12 / 12