Safety Data Sheet

This Safety Data Sheet has been prepared in accordance with the Minister of Industry Decree No. 23/M-IND/PER/4/2013 and GHS Classification 4th Edition.

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SECTION 1: Identification

1.1. Product identifier
3M™ Thinner T-11A

1.2. Recommended use and restrictions on use

Recommended use
Thinner

1.3. Supplier's details
ADDRESS: PT. 3M Indonesia Jl. Diponegoro KM. 39 Tambun- Bekasi 17510 -Indonesia
Telephone: +6221-27794000
E Mail: IA-PRLGroup@mmm.com
Website: www.mmm.com

1.4. Emergency telephone number
(021)29974000

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture
Flammable Liquid: Category 3.
Acute Toxicity (oral): Category 5.
Acute Toxicity (dermal): Category 5.
Acute Aquatic Toxicity: Category 3.

2.2. Label elements
Signal word
Warning

Symbols
Flame |

Pictograms

Hazard statements

H226	Flammable liquid and vapor.
H303	May be harmful if swallowed.
H313	May be harmful in contact with skin.
H402	Harmful to aquatic life.

Precautionary statements

Prevention:

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Response:

P370 + P378G	In case of fire: Use a fire fighting agent suitable for flammable liquids and solids such as dry chemical or carbon dioxide to extinguish.

Disposal:

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

2.3. Other hazards

None known

SECTION 3: Composition/information on ingredients

This material is a mixture.

Ingredient	C.A.S. No.	% by Wt
Ethyl 3-ethoxypropionate	763-69-9	100

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:

Immediately wash with soap and water. Remove contaminated clothing and wash before reuse. If signs/symptoms develop, get medical attention.

Eye Contact:

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required
Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media
In case of fire: Use a fire fighting agent suitable for flammable liquids and solids such as dry chemical or carbon dioxide to extinguish.

5.2. Special hazards arising from the substance or mixture
Closed containers exposed to heat from fire may build pressure and explode.

Hazardous Decomposition or By-Products

Substance	Condition
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion

5.3. Special protective actions for fire-fighters
Water may not effectively extinguish fire; however, it should be used to keep fire-exposed containers and surfaces cool and prevent explosive rupture.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Evacuate area. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only non-sparking tools. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapors, in accordance with good industrial hygiene practice. Warning! A motor could be an ignition source and could cause flammable gases or vapors in the spill area to burn or explode. Refer to other sections of this SDS for information regarding physical and health hazards, respiratory protection, ventilation, and personal protective equipment.

6.2. Environmental precautions
Avoid release to the environment. For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water.

6.3. Methods and material for containment and cleaning up
Contain spill. Cover spill area with a fire-extinguishing foam. An appropriate aqueous film forming foam (AFFF) is recommended. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Remember, adding an absorbent material does not remove a physical, health, or environmental hazard. Collect as much of the spilled material as possible using non-sparking tools. Place in a metal container approved for transportation by appropriate authorities. Clean up residue with an appropriate solvent selected by a qualified and authorized person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and SDS. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
For industrial or professional use only. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Avoid release to the environment. Avoid contact with oxidizing agents (eg. chlorine, chromic acid etc.) Wear low static or properly grounded shoes. To minimize the risk of ignition, determine applicable electrical classifications for the process using this product and select specific local exhaust ventilation equipment to avoid flammable vapor

accumulation.

7.2. Conditions for safe storage including any incompatibilities
Store in a well-ventilated place. Keep cool. Keep container tightly closed. Protect from sunlight. Store away from heat. Store away from acids. Store away from oxidizing agents.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Ingredient	C.A.S. No.	Agency	Limit type	Additional Comments
Ethyl 3-ethoxypropionate	763-69-9	Chemical Manufacturer Rec Guid	TWA:50 ppm;STEL:100 ppm	

Amer Conf of Gov. Indust. Hyg. : American Conference of Governmental Industrial Hygienists
Chemical Manufacturer Rec Guid : Chemical Manufacturer's Recommended Guidelines
Indonesia OELs : Indonesia. Minister of Manpower and Transmigration Decree No. 13/MEN/X/2011 concerning Threshold Values, Chemical and Physical Factors in the Workplace.
TWA: Time-Weighted-Average
STEL: Short Term Exposure Limit
CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls
Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment. Use explosion-proof ventilation equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection
None required.

Skin/hand protection
Select and use gloves and/or protective clothing approved to relevant local standards to prevent skin contact based on the results of an exposure assessment. Selection should be based on use factors such as exposure levels, concentration of the substance or mixture, frequency and duration, physical challenges such as temperature extremes, and other use conditions. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible gloves/protective clothing.
Gloves made from the following material(s) are recommended: Butyl Rubber

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:
Half facepiece or full facepiece air-purifying respirator suitable for organic vapors

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance/Odor	Colorless liquid with a pungent ester odor
Odor threshold	*No Data Available*
pH	*Not Applicable*
Melting point/Freezing point	*Not Applicable*
Boiling point/Initial boiling point/Boiling range	165 ºC
Flash Point	57.8 ºC [*Test Method:* Tagliabue Closed Cup]
Evaporation rate	0.12 [*Ref Std:* BUOAC=1]
Flammability (solid, gas)	Not Applicable
Flammable Limits(LEL)	1.05 % volume [@ 87.8 ºC]
Flammable Limits(UEL)	*No Data Available*
Vapor Pressure	200 Pa [@ 25 ºC]
Vapor Density	5.0 [*Ref Std:* AIR=1]
Density	0.95 g/ml
Relative Density	0.95 [*Ref Std:* WATER=1]
Water solubility	2.9 % [*Details:* CONDITIONS: @ 68F]
Solubility- non-water	*No Data Available*
Partition coefficient: n-octanol/ water	*No Data Available*
Autoignition temperature	377.2 ºC
Decomposition temperature	*No Data Available*
Viscosity	0.01 - 0.05 Pa-s
Volatile Organic Compounds	Approximately 972 g/l
Percent volatile	100 % weight
VOC Less H2O & Exempt Solvents	*No Data Available*

SECTION 10: Stability and reactivity

10.1. Reactivity
This material may be reactive with certain agents under certain conditions - see the remaining headings in this section.

10.2. Chemical stability
Stable. However, can form peroxides if materail becomes uninhibited.

10.3. Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4. Conditions to avoid
Sparks and/or flames

10.5. Incompatible materials
Strong oxidizing agents

10.6. Hazardous decomposition products

Substance	**Condition**
None known.	

Refer to section 5.2 for hazardous decomposition products during combustion.

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be

present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:
Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Skin Contact:
May be harmful in contact with skin.
Contact with the skin during product use is not expected to result in significant irritation.

Eye Contact:
Contact with the eyes during product use is not expected to result in significant irritation.

Ingestion:
May be harmful if swallowed.
Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Toxicological Data
If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

Name	Route	Species	Value
Ethyl 3-ethoxypropionate	Dermal	Rabbit	LD50 4,080 mg/kg
Ethyl 3-ethoxypropionate	Inhalation-Vapor (4 hours)	Rat	LC50 > 14.4 mg/l
Ethyl 3-ethoxypropionate	Ingestion	Rat	LD50 3,200 mg/kg

ATE = acute toxicity estimate

Skin Corrosion/Irritation

Name	Species	Value
Ethyl 3-ethoxypropionate	Rabbit	No significant irritation

Serious Eye Damage/Irritation

Name	Species	Value
Ethyl 3-ethoxypropionate	Rabbit	Mild irritant

Skin Sensitization

Name	Species	Value
Ethyl 3-ethoxypropionate	Guinea pig	Not sensitizing

Respiratory Sensitization

Name	Species	Value
Ethyl 3-ethoxypropionate		Data not available or insufficient for classification

Germ Cell Mutagenicity

Name	Route	Value
Ethyl 3-ethoxypropionate	In Vitro	Not mutagenic

Carcinogenicity

Name	Route	Species	Value
Ethyl 3-ethoxypropionate			Data not available or insufficient for classification

Reproductive Toxicity

Reproductive and/or Developmental Effects

Name	Route	Value	Species	Test Result	Exposure Duration

Target Organ(s)

Specific Target Organ Toxicity - single exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration

Specific Target Organ Toxicity - repeated exposure

Name	Route	Target Organ(s)	Value	Species	Test Result	Exposure Duration
Ethyl 3-ethoxypropionate	Inhalation	hematopoietic system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 6 mg/l	90 days
Ethyl 3-ethoxypropionate	Inhalation	nervous system	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 6 mg/l	17 days
Ethyl 3-ethoxypropionate	Inhalation	heart | liver | immune system | kidney and/or bladder	All data are negative	Rat	NOAEL 6 mg/l	17 days
Ethyl 3-ethoxypropionate	Ingestion	liver	Some positive data exist, but the data are not sufficient for classification	Rat	NOAEL 1,000 mg/kg/day	17 days
Ethyl 3-ethoxypropionate	Ingestion	hematopoietic system	All data are negative	Rat	NOAEL 1,000 mg/kg/day	28 days
Ethyl 3-ethoxypropionate	Ingestion	kidney and/or bladder | respiratory system	All data are negative	Rat	NOAEL 1,000 mg/kg/day	17 days

Aspiration Hazard

Name	Value
Ethyl 3-ethoxypropionate	Not an aspiration hazard

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. Additional information leading to material classification in Section 2 is available upon request. In addition, environmental fate and effects data on ingredients may not be reflected in this section because an ingredient is present below the threshold for labeling, an ingredient is not expected to be available for exposure, or the data is considered not relevant to the material as a whole.

12.1. Toxicity

Acute aquatic hazard:
GHS Acute 3: Harmful to aquatic life.

Chronic aquatic hazard:

Not chronically toxic to aquatic life by GHS criteria.

No product test data available

Material	Cas #	Organism	Type	Exposure	Test Endpoint	Test Result
Ethyl 3-ethoxypropionate	763-69-9	Fathead Minnow	Experimental	96 hours	Lethal Concentration 50%	45.3 mg/l
Ethyl 3-ethoxypropionate	763-69-9	Green Algae	Experimental	72 hours	No obs Effect Conc	114.86 mg/l

12.2. Persistence and degradability

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Ethyl 3-ethoxypropionate	763-69-9	Experimental Photolysis		Photolytic half-life (in air)	1.2 days (t 1/2)	Other methods
Ethyl 3-ethoxypropionate	763-69-9	Experimental Biodegradation	18 days	% CO2 Produced	100 % weight	OECD 301B - Mod. Sturm or CO2

12.3. Bioaccumulative potential

Material	CAS No.	Test Type	Duration	Study Type	Test Result	Protocol
Ethyl 3-ethoxypropionate	763-69-9	Experimental Bioconcentration		Log of Octanol/H2O part. coeff	1.35	Other methods

12.4. Mobility in soil
Please contact manufacturer for more details

12.5 Other adverse effects
No information available

SECTION 13: Disposal considerations

13.1. Disposal methods
Dispose of contents/ container in accordance with the local/regional/national/international regulations.

Incinerate in a permitted waste incineration facility. As a disposal alternative, utilize an acceptable permitted waste disposal facility. Empty drums/barrels/containers used for transporting and handling hazardous chemicals (chemical substances/mixtures/preparations classified as Hazardous as per applicable regulations) shall be considered, stored, treated & disposed of as hazardous wastes unless otherwise defined by applicable waste regulations. Consult with the respective regulating authorities to determine the available treatment and disposal facilities.

SECTION 14: Transport Information

Local Regulations
Land Transport: In accordance with Director General of Land Transportation Decree No. SK.725/AJ.302/DRJD/2004 which refer to UN Standard.
Sea Transport: In accordance with Minister of Transportation Decree No. KM 2/2010 which refer to IMDG Code Standard.

International Regulations

UN No.: UN 1263
UN Proper Shipping Name: Paint Related Material
Transportation Class (IMO): 3
Transportation Class (IATA): 3
Packing Group: III
Marine Pollutant: Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Global inventory status
Contact 3M for more information. The components of this material are in compliance with the provisions of the Korean Toxic Chemical Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Australia National Industrial Chemical Notification and Assessment Scheme (NICNAS). Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Japan Chemical Substance Control Law. Certain restrictions may apply. Contact the selling division for additional information. The components of this material are in compliance with the provisions of Philippines RA 6969 requirements. Certain restrictions may apply. Contact the selling division for additional information. The components of this product are in compliance with the new substance notification requirements of CEPA. The components of this product are in compliance with the chemical notification requirements of TSCA.

Local Inventory Status

Addendum I Government Regulation No. 74/2001:
List of Hazardous Substances Approved for Use :
None of the substances are listed as a Hazardous Substance Approved for Use.

Addendum II Government Regulation No. 74/2001:
Tab.1 List of Prohibited Substances for Use:
None of the substances are listed as a Prohibited Substance for Use.

Addendum II Government Regulation No. 74/2001:
Tab.2 List of Restricted Substances for Use:
None of the substances are listed as a Restricted Substance for Use.

Addendum I Ministry of Health Regulation No. 472/1996:
List and Classification of Hazardous Substances for Health:
None of the substances are listed and classified as a Hazardous Substance for Health.

Addendum I Act of Minister of Industry and Trade No. 254/MPP/KEP/2000
List of Hazardous Substances that are Regulated to Import Trade System:
None of the substances are listed and classified as a Hazardous Substance that is Regulated to Import Trade System.

SECTION 16: Other information

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satisfy themselves as to the suitability of the product for their own intended applications.

3M Indonesia SDSs are available at www.mmm.com