Revision date: 12/23/2015 Revision: 1

SAFETY DATA SHEET
Techni-Tool Flux Remover, AEROSOL
According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name Techni-Tool Flux Remover, AEROSOL

Product number 758CH752

Recommended use of the chemical and restrictions on use

Application Cleaning agent.

Details of the supplier of the safety data sheet

Manufacturer
Techni-Tool, Inc.
1547 North Trooper Road
Worcester, PA 19490-1117
610-941-2400
610-940-5485
www.techni-tool.com

Emergency telephone number

Emergency telephone CHEMTREC (800) 424-9300

2. Hazard(s) identification

Classification of the substance or mixture

OSHA Regulatory Status This Product is Hazardous under the OSHA Hazard Communication Standard.

Physical hazards Flam. Aerosol 1 - H222 Press. Gas, Liquefied - H280

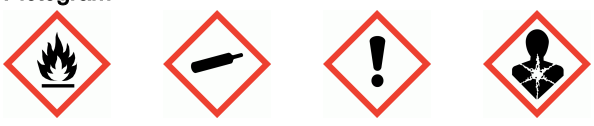
Health hazards Eye Irrit. 2A - H319 Repr. 2 - H361 STOT SE 1 - H370 STOT SE 3 - H335 STOT RE 1 - H372

Environmental hazards Not Classified

Human health Splashes in the eyes may cause redness and irritation. Keep out of the reach of children. See Section 11 for additional information on health hazards.

Label elements

Pictogram



Signal word Danger

Hazard statements
H222 Extremely flammable aerosol.
H280 Contains gas under pressure; may explode if heated.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H361 Suspected of damaging fertility or the unborn child.
H370 Causes damage to organs .
H372 Causes damage to organs through prolonged or repeated exposure.

Techni-Tool Flux Remover, AEROSOL

Precautionary statements

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use
P261 Avoid breathing spray.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice/ attention if you feel unwell.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P410+P403 Protect from sunlight. Store in a well-ventilated place.
P412 Do not expose to temperatures exceeding 50°C/122°F.
P501 Dispose of contents/ container in accordance with national regulations.

Contains PROPAN-2-OL, ETHANOL, ACETONE, METHANOL

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

PROPAN-2-OL **30-60%**

CAS number: 67-63-0

Classification
Flam. Liq. 2 - H225
Eye Irrit. 2A - H319
STOT SE 3 - H335

ETHANOL **30-60%**

CAS number: 64-17-5

Classification
Flam. Liq. 2 - H225
Eye Irrit. 2A - H319
STOT SE 3 - H335

HFC-134a Tetrafluoroethane **10-30%**

CAS number: 811-97-2

Classification
Press. Gas, Liquefied - H280

ACETONE **1-5%**

CAS number: 67-64-1

Classification
Flam. Liq. 2 - H225
Eye Irrit. 2A - H319
STOT SE 3 - H335

Techni-Tool Flux Remover, AEROSOL

METHANOL	1-5%
CAS number: 67-56-1	

Classification
Flam. Liq. 2 - H225
Acute Tox. 3 - H301
Acute Tox. 3 - H311
Acute Tox. 3 - H331
Repr. 2 - H361
STOT SE 1 - H370
STOT RE 1 - H372

The Full Text for all Hazard Statements are Displayed in Section 16.

Composition comments The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of CFR 1900.1200,TSCA: The ingredients of this product are on the TSCA Inventory.

4. First-aid measures

Description of first aid measures

General information Promptly remove any clothing that becomes wet or contaminated. Move affected person to fresh air at once. Get medical attention if any discomfort continues.

Inhalation Move affected person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep affected person warm and at rest. Get medical attention immediately.

Ingestion Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Never give anything by mouth to an unconscious person. Consult a physician for specific advice.

Skin Contact Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if irritation persists after washing.

Eye contact Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

Most important symptoms and effects, both acute and delayed

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation Vapors may cause headache, fatigue, dizziness and nausea.

Ingestion May cause stomach pain or vomiting. Headache.

Skin contact Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.

Eye contact Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain. Irritation and redness, followed by blurred vision.

Indication of immediate medical attention and special treatment needed

Notes for the doctor No specific recommendations. If in doubt, get medical attention promptly.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Extinguish with the following media: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards The product is extremely flammable.

Hazardous combustion products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

Advice for firefighters

Protective actions during firefighting Containers close to fire should be removed or cooled with water. Use water to keep fire exposed containers cool and disperse vapors.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible.

Environmental precautions

Environmental precautions Avoid release to the environment. Do not discharge into drains or watercourses or onto the ground. Contain spillage with sand, earth or other suitable non-combustible material.

Methods and material for containment and cleaning up

Methods for cleaning up Warn everybody of potential hazards and evacuate if necessary. If leakage cannot be stopped, evacuate area. Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Contain and absorb spillage with sand, earth or other non-combustible material. Collect and place in suitable waste disposal containers and seal securely.

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards.

7. Handling and storage

Precautions for safe handling

Usage precautions Keep away from heat, sparks and open flame. Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Avoid inhalation of vapors. Use approved respirator if air contamination is above an acceptable level. Keep out of the reach of children.

Specific end uses(s)

Specific end use(s) Cleaning agent.

Reference to other sections. Store away from incompatible materials (see Section 10).

8. Exposure Controls/personal protection

Control parameters

Occupational exposure limits

PROPAN-2-OL

Long-term exposure limit (8-hour TWA): OSHA 400 ppm 980 mg/m³
Long-term exposure limit (8-hour TWA): ACGIH 200 ppm 492 mg/m³
Short-term exposure limit (15-minute): ACGIH 400 ppm 984 mg/m³
A4

ETHANOL

Long-term exposure limit (8-hour TWA): ACGIH
Short-term exposure limit (15-minute): ACGIH 1000 ppm

HFC-134a Tetrafluoroethane

Long-term exposure limit (8-hour TWA): OES 4240 mg/m³
Short-term exposure limit (15-minute): OES

ACETONE

Long-term exposure limit (8-hour TWA): ACGIH 250 ppm 594 mg/m³
Short-term exposure limit (15-minute): ACGIH 500 ppm 1187 mg/m³
A4
Long-term exposure limit (8-hour TWA): OSHA 1000 ppm 2400 mg/m³

METHANOL

Long-term exposure limit (8-hour TWA): ACGIH 200 ppm 262 mg/m³
Short-term exposure limit (15-minute): ACGIH 250 ppm 328 mg/m³
Sk
Long-term exposure limit (8-hour TWA): OSHA 200 ppm 260 mg/m³
OSHA = Occupational Safety and Health Administration.
ACGIH = American Conference of Governmental Industrial Hygienists.

A4 = Not Classifiable as a Human Carcinogen.
Sk = Danger of cutaneous absorption.

Exposure controls

Protective equipment

Appropriate engineering controls	Provide adequate general and local exhaust ventilation.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Nitrile rubber. Polyvinyl alcohol (PVA). Viton rubber (fluoro rubber).
Other skin and body protection	Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapor contact.
Hygiene measures	Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.
Respiratory protection	No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Techni-Tool Flux Remover, AEROSOL

Appearance	Liquid.
Color	Colorless.
Odor	Alcoholic.
Odor threshold	No information available.
pH	No information available.
Melting point	No information available.
Initial boiling point and range	77.6°C/172°F @ 101.3 kPa
Flash point	12°C/53°F TCC (Tag closed cup).
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: 12.7 %(V) Lower flammable/explosive limit: 2.0 %(V)
Other flammability	The product is highly flammable.
Vapor pressure	5.2 kPa @ 20°C
Vapor density	1.82
Relative density	No information available.
Bulk density	No information available.
Solubility(ies)	Completely soluble in water.
Partition coefficient	No information available.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	No information available.
Oxidising properties	There are no chemical groups present in the product that are associated with oxidizing properties.
Refractive index	No information available.
Particle size	No information available.
Molecular weight	No information available.
Volatility	100%
Saturation concentration	No information available.
Critical temperature	No information available.

10. Stability and reactivity

Stability	Stable at normal ambient temperatures.
Possibility of hazardous reactions	Will not polymerize.

Techni-Tool Flux Remover, AEROSOL

Conditions to avoid	Avoid heat, flames and other sources of ignition.
Materials to avoid	Strong oxidizing agents. Strong alkalis. Strong mineral acids.
Hazardous decomposition products	Fire creates: Vapors/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO_2).

11. Toxicological information

Information on toxicological effects

Other health effects	There is no evidence that the product can cause cancer.

Acute toxicity - oral

ATE oral (mg/kg)	6,666.67

Acute toxicity - dermal

ATE dermal (mg/kg)	20,000.0

Acute toxicity - inhalation

ATE inhalation (vapours mg/l)	200.0

Inhalation	May cause respiratory system irritation. Vapors may cause headache, fatigue, dizziness and nausea. Prolonged inhalation of high concentrations may damage respiratory system.
Skin Contact	Product has a defatting effect on skin. May cause skin irritation/eczema.
Eye contact	Irritating to eyes.

Toxicological information on ingredients.

PROPAN-2-OL

Carcinogenicity

IARC carcinogenicity	IARC Group 3 Not classifiable as to its carcinogenicity to humans.
NTP carcinogenicity	Not listed.
OSHA Carcinogenicity	Not listed.

HFC-134a Tetrafluoroethane

Other health effects	There is no evidence that the product can cause cancer.

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} gases ppmV)	567,000.0
Species	Rat
ATE inhalation (gases ppm)	567,000.0

METHANOL

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	7,300.0

Species	Mouse
ATE oral (mg/kg)	100.0
Acute toxicity - dermal	
Acute toxicity dermal (LD_{50} mg/kg)	15,800.0
Species	Rabbit
ATE dermal (mg/kg)	300.0
Acute toxicity - inhalation	
Acute toxicity inhalation (LC_{50} vapours mg/l)	64,000.0
Species	Rat
ATE inhalation (vapours mg/l)	3.0

12. Ecological Information

Toxicity

Ecological information on ingredients.

PROPAN-2-OL

Acute toxicity - fish	LC_{50}, 96 hours: 9,640 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 5102 mg/l, Daphnia magna
Acute toxicity - aquatic plants	IC_{50}, 72 hours: >2,000 mg/l, Algae

ETHANOL

Acute toxicity - fish	LC_{50}, 96 hours: >10,000 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 7,800 mg/l, Daphnia magna

HFC-134a Tetrafluoroethane

Acute toxicity - fish	LC_{50}, 96 hours: 450 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 980 mg/l, Daphnia magna

METHANOL

Acute toxicity - fish	LC_{50}, 96 hours: >100 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: >10000 mg/l, Daphnia magna

Bioaccumulative potential

Partition coefficient No information available.

Techni-Tool Flux Remover, AEROSOL

Ecological information on ingredients.

HFC-134a Tetrafluoroethane

Partition coefficient Pow: 1.06

Mobility in soil

Mobility Not considered to be a significant hazard due to the small quantities used.

13. Disposal considerations

Waste treatment methods

General information Reuse or recycle products wherever possible.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

14. Transport information

UN Number

UN No. (DOT) UN1950

UN No. (TDG) UN1950

UN No. (IMDG) UN1950

UN No. (ICAO) UN1950

UN proper shipping name

Proper shipping name (DOT) UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY

Proper shipping name (TDG) UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY

Proper shipping name (IMDG) UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY

Proper shipping name (ICAO) UN1950, AEROSOLS, FLAMMABLE, 2.1, LIMITED QUANTITY

Transport hazard class(es)

TDG class 2.1

TDG label 2.1

IMDG Class 2.1

ICAO class/division 2.1

Transport labels

Packing group

DOT pack group N/A

TDG Packing Group N/A

IMDG packing group N/A

ICAO packing group N/A

Environmental hazards

Techni-Tool Flux Remover, AEROSOL

Environmentally Hazardous Substance
No.

Special precautions for user

EmS F-E, S-E

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities
Not listed.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

METHANOL
Final CERCLA RQ: 5000(2270) pounds (Kilograms)

ACETONE
Final CERCLA RQ: 5000(2270) pounds (Kilograms)

SARA Extremely Hazardous Substances EPCRA Reportable Quantities
Not listed.

SARA 313 Emission Reporting

METHANOL
1.0 %

CAA Accidental Release Prevention
Not listed.

OSHA Highly Hazardous Chemicals
Not listed.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

METHANOL
Known to the State of California to cause developmental and reproductive toxicity.

California Air Toxics "Hot Spots" (A-I)

METHANOL
Present.

PROPAN-2-OL
Present.

California Air Toxics "Hot Spots" (A-II)
Not listed.

California Directors List of Hazardous Substances

Techni-Tool Flux Remover, AEROSOL

METHANOL
Present.

ACETONE
Present.

PROPAN-2-OL
Present.

Massachusetts "Right To Know" List

ETHANOL
Yes.

METHANOL
Present.

ACETONE
Present.

PROPAN-2-OL
Present.

Rhode Island "Right To Know" List

ETHANOL
Yes.

METHANOL
Present.

ACETONE
Present.

PROPAN-2-OL
Present.

Minnesota "Right To Know" List

ETHANOL
Yes.

METHANOL
Present.

ACETONE
Present.

PROPAN-2-OL
Present.

HFC-134a Tetrafluoroethane
Present.

New Jersey "Right To Know" List

ETHANOL
Yes.

METHANOL
Present.

ACETONE
Present.

PROPAN-2-OL
Present.

Pennsylvania "Right To Know" List

ETHANOL
Yes.

METHANOL
Present.

ACETONE
Present.

PROPAN-2-OL
Present.

Inventories

US - TSCA
Yes

ETHANOL
Yes

METHANOL
Present.

ACETONE
Present.

PROPAN-2-OL
Present.

16. Other information

Revision date	12/23/2015
Revision	1
SDS No.	20277
Hazard statements in full	H222 Extremely flammable aerosol. H225 Highly flammable liquid and vapor. H280 Contains gas under pressure; may explode if heated. H301 Toxic if swallowed. H311 Toxic in contact with skin. H319 Causes serious eye irritation. H331 Toxic if inhaled. H335 May cause respiratory irritation. H361 Suspected of damaging fertility or the unborn child. H370 Causes damage to organs . H372 Causes damage to organs through prolonged or repeated exposure.

Techni-Tool Flux Remover, AEROSOL

NFPA - health hazard	Irritation, minor residual injury. (1)
NFPA - flammability hazard	Ignites easily. (3)
NFPA - instability hazard	Unstable if heated. (1)
NFPA - special hazard	N/A
ACA HMIS Health rating.	Slight Hazard. (1)
ACA HMIS Flammability rating.	Ignites easily. (3)
ACA HMIS Physical hazard rating.	Unstable if heated. (1)
ACA HMIS Personal protection rating.	B