UES KİMYA SANAYİ A.Ş.

SAFETY DATA SHEET

According to Regulation (EU) No 2015/830

TVS-110

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: TVS-110
Product identifier: Solvent based adhesive for hot stamping foil

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Textile and leather printing material

1.3 Details of the supplier of the safety data sheet

Supplier: **UES Kimya Sanayi Anonim Şirketi**
Address: Fatih Mah. 105. Cad. D Blok No: 6C
Kapaklı/TEKİRDAĞ – TÜRKİYE
Phone: +90 546 524 09 33
E-mail: info@ueskimya.com

1.4 Emergency telephone number

UES Foils: +90 546 524 09 77
Emergency First Aid Center: 112
National Poison Counseling Center: 114
Fire Department: 110

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Flam. Liq. 2-H225
Human health	Eye Irrit. 2-H319
	STOT SE 3-H336
Environment	Not classified.

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

2.2 Label elements

Label In Accordance With (EC) No. 1272/2008

Signal word Danger

Hazard statements

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
EUH066	Repeated exposure may cause skin dryness or cracking.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/light/equipment.
P242	Use non-sparking tools.

P305 + P351 + P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P308 + P313	If skin irritation or rash occurs: Get medical advice/attention.

2.3 Other hazards

This product does not contain any PBT or vPvB substances.

3. Composition/information on ingredients

3.2 Mixtures

Name	CAS No.	EC No.	Ratio (%)	Classification (T.C. 28848)
Ethyl methyl ketone (MEK)	78-93-3	201-159-0	36-44	Flam. Liq. 2-H225 Eye Irrit. 2-H319 STOT SE 3-H336 EUH066
Toluen	108-88-3	203-625-9	4-6	Flam. Liq. 2 - H225 Asp. Tox. 1 - H304 Skin Irrit. 2- H315 STOT SE 3 - H336 Repr. 2 - H361d STOT RE 2 - H373 Aquatic Chronic 3 - H412
Polyurethane resin	-	-	50-60	-

4. First aid measures

4.1 Description of first aid measures

General notes
Symptoms may appear after some time has passed since exposure. Consult a doctor with this Safety Data Sheet in case of exposure to the product.

Inhalation
Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If not breathing, give artificial respiration.
Get medical advice / attention if you feel unwell.
Get medical advice / attention if experiencing respiratory symptoms.

Ingestion
Rinse your mouth with water. Do not induce vomiting.
Get immediate medical advice / attention.
If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

Skin contact
Remove / Take off all contaminated clothing immediately.
Wash with plenty of soap and water.
Get immediate medical advice / attention, if skin irritation or rash occurs.

Eye contact
Whilst protecting yourself, relocate the casualty away from the source of danger.
Remove contact lenses, if present and easy to do. Continue rinsing.
Rinse with clean water for at least 15 minutes and then seek medical attention.
When rinsing, open your eyelids with fingers to insure saturation of water.

4.2 Most important symptoms and effects, both acute and delayed

Acute and delayed effects are noted in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed
No data available.

5. Firefighting measures

5.1 Extinguishing media
Dry extinguishing powder, carbon dioxide, sand, water spray (not splash).
Fight large fire with alcohol resistant foam or water spray.

5.2 Special hazards arising from the substance or mixture
Combustion products: carbon monoxide (CO), carbon dioxide (CO_2)
Vapors are heavier than air and may spread along floors.
Flammable.
Risk of ignition.
Forms explosive mixtures with air at ambient temperatures.
Pay attention to flashback.
When heated, containers may explode. Thermal decomposition can generate irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

5.3 Advice for firefighters
Depending on the size of the fire, it may be necessary to use full protective clothing and individual breathing equipment.
Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, etc.)

Other informations
In case of accidents and other emergencies, act in accordance with the Internal Emergency Plan and SDS. Eliminate any source of sparks. In the event of fire, cool containers and tanks that are likely to ignite, explode or scorch due to high temperature. Do not allow the products used in fire extinguishing to be poured into the aqueous environment.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Shut off all sources of ignition. The use of personal protective equipment is mandatory in case of contact with the spilled product (See section 8). Evacuate the area and keep unprotected persons away. Avoid breathing smoke and gas.

6.2 Environmental precautions
Avoid releasing to the environment. Keep away from drainage, surface and ground water.

6.3 Methods and material for containment and cleaning up
Collect into open container by absorbing with cloths, rags, sand or etc. and then rinse with plenty of water.
Contain the flow path with blankets or sand bags and collect into an appropriate container for large spills.
Prevent the inflow into drains, sewer, basement, or enclosed areas.
Wear appropriate protective equipment throughout the process.

6.4 Reference to other sections
See section 13 for waste disposal.

7. Handling and storage

7.1 Precautions for safe handling
Work under hood. Keep away from open flames, hot surfaces and source of ignition.
Take precautionary measures against static discharges. Use only non-sparking tools..
To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded
Seal container after use.
Wash hands thoroughly and rinse mouth after handling.
Do not eat, drink or smoke when using this product.
Do not carry contaminated gloves and protective equipment into rest / break areas.
Wear proper protective equipment to avoid inhalation and contact with eyes and skin.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed.
Keep cool and well-ventilated place.
Store in a dark light-safe area.
Do not freeze.

7.3 Specific end use(s)

Except for the aforementioned instructions, no recommendations regarding the use of this product are required to be followed.

8. Exposure controls/personal protection

8.1 Control parameters

Component	European Union
Ethyl methyl ketone (MEK)	TWA: 200 ppm (8h) TWA: 600 mg/m^3 (8h) STEL: 300 ppm (15min) STEL: 900 mg/m^3 (15min)
Toluen	TWA: 50 ppm (8h) TWA: 192 mg/m^3 (8h) STEL: 100 ppm (15 min) STEL: 184 mg/m^3 (15 min)

Derived No Effect Level (DNEL)

Component	Chronic effects systemic (Dermal)	Chronic effects systemic (Inhalation)
Ethyl methyl ketone (MEK)	DNEL = 1161 mg/kg	DNEL = 600 mg/m^3
Toluen	DNEL = 384 mg/kg	DNEL = 192 mg/m^3

Predicted No Effect Concentration (PNEC)

Component	Compartment	Value
Ethyl methyl ketone (MEK)	Fresh water	PNEC= 55,8 mg/L
	Sea water	PNEC= 55,8 mg/L
	Fresh water sediment	PNEC= 284,74 mg/kg
	Sea sediment	PNEC= 287,7 mg/kg
	Soil	PNEC= 22,5 mg/kg
Toluen	Fresh water	PNEC= 0,68 mg/l
	Sea water	PNEC= 0,68 mg/l
	Fresh water sediment	PNEC= 16,39 mg/kg
	Sea sediment	PNEC= 16,39 mg/kg
	Soil	PNEC= 2,89 mg/kg

8.2 Exposure controls
Protective equipment

Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Body Protection
Wearing flame retardant protective clothes (long sleeve uniform) that organic solvent or the chemical do not infiltrate easily is preferred.

Respiratory equipment
Wearing organic vapor gas mask is preferred. Recommended Filter type: Filter A (acc. to DIN 3181)
The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Environmental Exposure Controls
No data available.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Liquid
Colour	Slightly yellow
Odour	Characteristic
Solubility	No data available.
Firts boiling point	Approx. 80 °C
Vapor pressure	No data available.
Melting point	No data available.
Density	1.00-1.05 g/cm^3
Dynamic viscosity	No data available.
Kinematic viscosity	No data available.
Concentration	50-60%
pH	No data available.
Vapor density	No data available.
Partition Coefficient (N-Octanol/Water)	No data available.
Decomposition temperature	No data available.
Flammability	Highly flammable
Flash point	-7 °C (closed cup)
Explosion limits	Lower: 1.8 Vol% Upper: 11.5 Vol%
Autoignition temperature	No data available.

9.2 Other information
No data available.

10. Stability and reactivity

10.1 Reactivity
Vapors may form explosive mixture with air.

10.2 Chemical stability
Stable under normal temperature conditions and recommended use. Stable under prescribed storage conditions.

10.3 Possibility of hazardous reactions
Generation of peroxide may occur in contact with air, light or oxidizing agents.
Risk of explosion in contact with: hydrogen peroxide/nitric acid or hydrogen peroxide/sulfuric acid.
Electrostatic charging possible. The substance can react dangerously with: oxidizing agents, trichloromethane/alkali chromium trioxide.

10.4 Conditions to avoid
Sunlight, heat, open flame, high temperature, sparks, static electricity, other sources of ignition.

10.5 Incompatible materials
No data available.

10.6 Hazardous decomposition products
Carbon monoxide (CO), carbon dioxide (CO_2) gas might be generated by combustion.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Component	LD50 Oral (Rat)	LD50 Dermal (Rabbit)	LC50 Inhalation (Mouse-4h)
Ethyl methyl ketone (MEK)	2740 mg/kg	6480 mg/kg	32000 mg/m^3
Toluen	636 mg/kg	12200 mg/kg	49 mg/m^3

Skin corrosion/irritation
Skin Irrit. 2 - H315

Serious eye damage/eye irritation
Eye Irrit. 2-H319

Respiratory or skin sensitization
No data available.

Germ cell mutagenicity
No data available.

Carcinogenicity
No data available.

Reproductive toxicity
Repr. 2 - H361d

Specific target organ toxicity - single exposure
STOT SE 3-H336

Specific target organ toxicity - repeated exposure
STOT RE 2 - H373

Aspiration hazard
Asp. Tox. 1 - H304

11.2 Additional information
No data available.

12. Ecological information

12.1 Toxicity

Component	LC50 Fish (96 h)	EC50 Crustaceans (48 h)
Ethyl methyl ketone (MEK)	3220 mg/kg (Pimephales promelas)	5090 mg/kg (Daphnia magna)
Toluen	5.5 mg/l	

12.2 Persistence and degradability

Component	Degradability
Ethyl methyl ketone (MEK)	98% (28d)
Toluen	86% (20d)
Polyurethane resin	No data available

12.3 Bioaccumulative potential
No data available.

12.4 Mobility in soil
No data available.

12.5 Results of PBT and vPvB assessment
The product does not meet the PBT and vPvB criteria.

12.6 Other adverse effects
No data available.

13. Disposal considerations

13.1 Waste treatment methods
The product must be disposed of in accordance with official regulations. Do not allow the product to mix into sewers and groundwater.

14. Transport information

14.1 UN Number
ADR/RID: 1866 IMDG: 1866 IATA: 1866

14.2 UN proper shipping name
ADR/RID: RESIN SOLUTION, falmmable
IMDG: RESIN SOLUTION, falmmable
IATA: RESIN SOLUTION, falmmable

14.3 Transport hazard class(es)
ADR/RID: 3 IMDG: 3 IATA: 3

14.4 Packing group
ADR/RID: II IMDG: II IATA: II

14.5 Environmental hazards
Environmentally Hazardous Substance/Marine Pollutant
No.

14.6 Special precautions for user
No special precautions required.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not applicable.

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures.

15.2 Chemical Safety Assessment
No chemical safety assessment has been carried out.

16. Other information

Abbreviations

CAS:	Chemical Abstracts Service.
EC:	European Inventory of Existing Commercial Chemical Substances (EINECS).
TWA:	Time Weighted Average.
STEL:	Short Term Exposure Limit.
DNEL:	Derived No Effect Level.
PNEC:	Predicted No Effect Concentration.
LD50:	Lethal Dose, 50%
LC50:	Lethal Concentration, 50%
EC50:	Effective Concentration, 50%
ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
RID:	European Agreement concerning the International Carriage of Dangerous Goods by Rail.
IMDG:	International Maritime Dangerous Goods.
IATA:	International Air Transport Association.
MARPOL:	International Convention for the Prevention of Pollution From Ships.
IBC:	Intermediate Bulk Container- International Code for the Construction and Equipment
PBT:	Persistent, Bioaccumulative and Toxic
vPvB:	Very Persistent and Very Bioaccumulative

Classification procedures

H225	Highly flammable liquid and vapour.
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