SAFETY DATA SHEET
PU. PRIMER HARD. 4226
According to regulation (EU) No. 2015/830

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name PU. PRIMER HARD. 4226

Chemical name PU Hardener

Product number PK4226

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

Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier IbaValresa Boya Kimya A.Ş.

Manufacturer IbaValresa Boya Kimya A.Ş.

1.4. Emergency telephone number

Emergency telephone İba Valresa: +90312 2675622

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Flam. Liq. 2 - H225

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Repr. 2 - H361d STOT SE 3 - H336 STOT RE 2 - H373 Asp. Tox. 1 - H304

Environmental hazards Not Classified

Human health The liquid may be irritating to eyes, respiratory system and skin.

2.2. Label elements

Hazard pictograms



Signal word Danger

PU. PRIMER HARD. 4226

Hazard statements

H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H361d Suspected of damaging the unborn child.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.
H304 May be fatal if swallowed and enters airways.

Precautionary statements

P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P242 Use non-sparking tools.
P261 Avoid breathing vapour/ spray.
P264 Wash contaminated skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P302+P352 IF ON SKIN: Wash with plenty of water.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/ attention.
P312 Call a POISON CENTRE/doctor if you feel unwell.
P314 Get medical advice/ attention if you feel unwell.
P321 Specific treatment (see medical advice on this label).
P331 Do NOT induce vomiting.
P332+P313 If skin irritation occurs: Get medical advice/ attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.
P362+P364 Take off contaminated clothing and wash it before reuse.
P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/ container in accordance with national regulations.

Contains

Toluene, ethyl acetate, Aromatic polyisocyanate, N-Butyl Acetate, m-tolylidene diisocyanate

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

PU. PRIMER HARD. 4226

Toluene **25-40%**

CAS number: 108-88-3 EC number: 203-625-9

Classification
Flam. Liq. 2 - H225
Skin Irrit. 2 - H315
Repr. 2 - H361d
STOT SE 3 - H336
STOT RE 2 - H373
Asp. Tox. 1 - H304

ethyl acetate **25-40%**

CAS number: 141-78-6 EC number: 205-500-4

Classification
Flam. Liq. 2 - H225
Eye Irrit. 2 - H319
STOT SE 3 - H336

Aromatic polyisocyanate **20-25%**

CAS number: 53317-61-6

Classification
Eye Irrit. 2 - H319
Skin Sens. 1A - H317

N-Butyl Acetate **1-5%**

CAS number: 123-86-4 EC number: 204-658-1 REACH registration number: 01-2119485493-29-0008

Classification
Flam. Liq. 3 - H226
STOT SE 3 - H336

m-tolylidene diisocyanate **<1%**

CAS number: 26471-62-5 EC number: 247-722-4

Specific Concentration Limits - m-tolylidene diisocyanate: Resp. Sens. 1; H334: C ≥ 0,1 %

Classification
Acute Tox. 2 - H330
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
Resp. Sens. 1 - H334
Skin Sens. 1 - H317
Carc. 2 - H351
STOT SE 3 - H335
Aquatic Chronic 3 - H412

The full text for all hazard statements is displayed in Section 16.

PU. PRIMER HARD. 4226

SECTION 4: First aid measures

4.1. Description of first aid measures

General information Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel. If in doubt, get medical attention promptly.

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist.

Ingestion Rinse mouth thoroughly with water. Do not induce vomiting unless under the direction of medical personnel. 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. Wash clothing and clean shoes thoroughly before reuse.

Eye contact Rinse with water. Do not rub eye. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

4.2. 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 May cause respiratory allergy. Vapours may cause drowsiness and dizziness.

Ingestion May cause irritation. May be fatal if swallowed and enters airways. Nausea, vomiting.

Skin contact The product is irritating to eyes and skin. May cause an allergic skin reaction.

Eye contact The product is irritating to eyes and skin.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

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

5.2. Special hazards arising from the substance or mixture

Specific hazards Containers can burst violently or explode when heated, due to excessive pressure build-up. Flammable liquid and vapour. Vapours may be ignited by a spark, a hot surface or an ember. Vapours may form explosive mixtures with air. Fire-water run-off in sewers may create fire or explosion hazard.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours. Carbon dioxide (CO2). Carbon monoxide (CO).

5.3. Advice for firefighters

PU. PRIMER HARD. 4226

Protective actions during firefighting Avoid breathing fire gases or vapours. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes and clothing. Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Evacuate area. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Avoid inhalation of vapours and contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Clear up spills immediately and dispose of waste safely. If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. The contaminated absorbent may pose the same hazard as the spilled material. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13. Do not allow material to enter confined spaces, due to the risk of explosion. Absorb small quantities with paper towels and evaporate in a safe place. Once evaporation is complete, place paper in a suitable waste disposal container and seal securely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid contact with skin, eyes and clothing. Avoid the formation of mists. Do not breathe vapour/spray. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers. Persons susceptible to allergic reactions should not handle this product.

Advice on general occupational hygiene Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

PU. PRIMER HARD. 4226

Storage precautions	Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage.
Storage class	Flammable liquid storage.

7.3. Specific end use(s)

Specific end use(s)	The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

8.2. Exposure controls

Protective equipment



Appropriate engineering controls	Provide adequate ventilation.
Eye/face protection	Wear eye protection. If inhalation hazards exist, a full-face respirator may be required instead.
Hand protection	Wear protective gloves. Polyvinyl chloride (PVC). Neoprene. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.
Other skin and body protection	Wear suitable coveralls to prevent exposure to the skin.
Hygiene measures	Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.
Respiratory protection	When spraying, wear a suitable supplied-air respirator.
Environmental exposure controls	Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless.
Odour	Characteristic.
pH	No information available.
Initial boiling point and range	No information available.
Flash point	Flash Point < 23 C
Upper/lower flammability or explosive limits	No information available.
Vapour density	No information available.
Relative density	No information available.

PU. PRIMER HARD. 4226

Solubility(ies)	Insoluble in water.
Partition coefficient	No information available.
Viscosity	No information available.
Explosive properties	There are no chemical groups present in the product that are associated with explosive properties.
Oxidising properties	There are no chemical groups present in the product that are associated with oxidising properties.

9.2. Other information

Other information	None.

Non Volatile Material

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	The following materials may react violently with the product: Oxidising agents.

10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition. Containers can burst violently or explode when heated, due to excessive pressure build-up. Static electricity and formation of sparks must be prevented.

10.5. Incompatible materials

Materials to avoid	Oxidising agents. Acids - oxidising.

10.6. Hazardous decomposition products

Hazardous decomposition products	Heating may generate the following products: Carbon dioxide (CO2). Carbon monoxide (CO).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - inhalation

ATE inhalation (gases ppm)	70,372.98
ATE inhalation (vapours mg/l)	351.86
ATE inhalation (dusts/mists mg/l)	35.19

Skin corrosion/irritation

Skin corrosion/irritation	Irritating to skin.

Serious eye damage/irritation

Serious eye damage/irritation	Irritation of eyes is assumed.

PU. PRIMER HARD. 4226

Respiratory sensitisation

Respiratory sensitisation Sensitising. There is evidence that the product can cause respiratory hypersensitivity.

Skin sensitisation

Skin sensitisation Sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Genotoxicity - in vivo Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Contains a substance/a group of substances which may damage fertility. Possible risk of adverse reproductive effects.

Reproductive toxicity - development Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure A single exposure may cause the following adverse effects: May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure May cause damage to organs.

Aspiration hazard

Aspiration hazard Aspiration hazard if swallowed. May be harmful if swallowed and enters airways.

Inhalation The product contains a sensitising substance. May be harmful if inhaled. May cause sensitisation by inhalation.

Ingestion Nausea, vomiting.

Skin contact Causes mild skin irritation.

Eye contact This product is strongly irritating.

SECTION 12: Ecological information

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Toxicity No data available.

12.2. Persistence and degradability

Persistence and degradability The degradability of the product is not known.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient No information available.

12.4. Mobility in soil

Mobility No data available.

PU. PRIMER HARD. 4226

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information The generation of waste should be minimised or avoided wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out.

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

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1263

UN No. (IATA) 1263

UN No. (IMDG) 1263

UN No. (ICAO) 1263

UN No. (ADN) 1263

14.2. UN proper shipping name

Proper shipping name (ADR/RID) PAINT RELATED MATERIAL

Proper shipping name (IMDG) PAINT RELATED MATERIAL

Proper shipping name (IATA) PAINT RELATED MATERIAL

Proper shipping name (ICAO) PAINT RELATED MATERIAL

Proper shipping name (ADN) PAINT RELATED MATERIAL

14.3. Transport hazard class(es)

ADR/RID class 3

ADR/RID classification code F1

ADR/RID label 3

IMDG class 3

ICAO class/division 3

IATA class 3

ADN class 3

Transport labels



PU. PRIMER HARD. 4226

14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ICAO packing group	II
IATA packing group	II
ADN packing group	II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

EmS	F-E, S-E
ADR transport category	2
Emergency Action Code	•3YE
Hazard Identification Number (ADR/RID)	33
Tunnel restriction code	(D/E)
Limited quantity	1L

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

SECTION 15: Regulatory information

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

EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

PU. PRIMER HARD. 4226

Abbreviations and acronyms used in the safety data sheet	ATE: Acute Toxicity Estimate. ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways. IMDG: International Maritime Dangerous Goods. IATA: International Air Transport Association. CAS: Chemical Abstracts Service. MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air. RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail. IBC: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code). UN: United Nations. Kow: Octanol-water partition coefficient. LC_{50}: Lethal Concentration to 50 % of a test population. LD_{50}: Lethal Dose to 50% of a test population (Median Lethal Dose). EC_{50}: 50% of maximal Effective Concentration. SVHC: Substances of Very High Concern. vPvB: Very Persistent and Very Bioaccumulative. BCF: Bioconcentration Factor.
Key literature references and sources for data	Source: European Chemicals Agency, http://echa.europa.eu/
Issued by	Evren Kaya - Sertifikalı GBF Hazırlayıcısı Sertifika No ve Tarihi: GBF01.42.03/ 08.02.2020 evren.kaya@ibavalresa.com.tr +903122675622
Revision date	11/05/2022
Revision	1.2
Supersedes date	01/04/2016
SDS number	4585
Hazard statements in full	H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H330 Fatal if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H351 Suspected of causing cancer. H361d Suspected of damaging the unborn child. H373 May cause damage to organs through prolonged or repeated exposure. H412 Harmful to aquatic life with long lasting effects.

.

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.