Permanent Marker EK-17,EK-19 and EK-47

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name	Permanent Marker EK-17,EK-19 and EK-47
Product code	EK-17,EK-19,EK-47 EKPR-PLM
CAS No.	Not applicable.
EC No.	Not applicable.
REACH Registration No.	Not known.

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

Identified Use(s)	Permanent marker.
Uses Advised Against	Not known.

1.3 Details of the supplier of the safety data sheet

Manufacturer

Company Identification	Shachihata Inc.
Address of Manufacturer	4-69, Amazuka-cho, Nishi-ku, Nagoya City, 451-0021, Japan
Postal code	451-0021
Telephone:	+81-52-521-3600
Fax	+81-52-521-3899
E-mail	chem-analysis@ngy.shachihata.co.jp
Office hours	

Supplier

Company Identification	Shachihata (Europe) Ltd
Address of Supplier	Unit 8 Ashville Way Sutton Weaver Runcorn Cheshire
Postal code	WA7 3EZ
Telephone:	01928 790 844
Fax	01928 790 683
E-mail	sales@shachihata.eu
Office hours	09:00 - 17:00

1.4 Emergency telephone number

Emergency Phone No.	01928 790844 (office hours)
Contact	Ros Williams

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008 (CLP) Not classified as dangerous for supply/use.

2.2 Label elements

According to Regulation (EC) No. 1272/2008 (CLP)

Product Name	Permanent Marker EK-17,EK-19 and EK-47
Hazard Pictogram(s)	None.
Signal Word(s)	None.
Hazard Statement(s)	None.
Precautionary Statement(s)	None.

2.3 Other hazards

Sharp edges may cause injury.

2.4 Additional Information

None.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Articles for Marker .

3.1 Substances

Not applicable.

3.2 Mixtures

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / REACH Registration No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
ethylbenzene	100-41-4	202-849-4 01-2119489370-35-XXXX	25-35	Flam. Liq. 2 H225 Asp. Tox. 1 H304	GHS02 GHS08

				Acute Tox. 4 H332 STOT RE 2 H373	GHS07
Xylene	1330-20-7	215-535-7 01-2119488216-32-XXXX	20-30	Flam. Liq. 3 H226 Acute Tox. 4 H312 Skin Irrit. 2 H315 Acute Tox. 4 H332	GHS02 GHS07
butan-1-ol n-butanol	71-36-3	200-751-6 01-2119484630-38-XXXX	15-25	Flam. Liq. 3 H226 Acute Tox. 4 H302 Skin Irrit. 2 H315 Eye Dam. 1 H318 STOT SE 3 H335 STOT SE 3 H336	GHS02 GHS05 GHS07
4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	205-426-2 01-2119541687-29-XXXX	0.1-1	Skin Irrit. 2 H315 Eye Dam. 1 H318 Aquatic Acute 1 H400 Aquatic Chronic 1 H410	GHS05 GHS07 GHS09

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation — Not normally required.

Skin Contact — Not normally required. Wash skin with water.

Eye Contact — Not normally required. If contact with eyes directly, flush with gently flowing fresh water thoroughly.

Ingestion — Unlikely route of exposure.

4.2 Most important symptoms and effects, both acute and delayed

None anticipated.

4.3 Indication of any immediate medical attention and special treatment needed

No special requirements.

SECTION 5: FIREFIGHTING MEASURES

Non-flammable.

5.1 Extinguishing media

Suitable Extinguishing media — Extinguish with carbon dioxide, dry chemical, foam or waterspray.

Unsuitable extinguishing media — Do not use water jet.

5.2 Special hazards arising from the substance or mixture

None anticipated.

5.3 Advice for firefighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Not normally required.

6.2 Environmental precautions

Do not release large quantities into the surface water or into drains.

6.3 Methods and material for containment and cleaning up

Collect mechanically and dispose of according to Section 13.

6.4 Reference to other sections

See Also Section 8, 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

No special precautions are required for this product. Wash hands and exposed skin after use.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature — Ambient.

Storage life — Stable under normal conditions.

Incompatible materials — None known.

7.3 Specific end use(s)

Permanent marker.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

Occupational Exposure Limits						
SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
Xylene, o-,m-,p- or mixed isomers	1330-20-7	50	220	100	441	Sk, BMGV
Xylene, mixed isomers, pure	1330-20-7	50	221	100	442	IOELV, Skin
Ethylbenzene	100-41-4	100	441	125	552	Sk
Ethylbenzene	100-41-4	100	442	200	884	IOELV, Skin
Butan-1-ol	71-36-3			50	154	Sk

Region	Source
EU	EU Occupational Exposure Limits
United Kingdom	UK Workplace Exposure Limits EH40/2005 (Fourth edition, published 2020)

Remark	Notes
Sk	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.
BMGV	Biological monitoring guidance values are listed in Table 2.
IOELV	Indicative Occupational Exposure Limit Values.
Skin	The possibility of significant uptake through the skin.

Biological Exposure Indices						
Substances	CAS Number	Sampling	Tissues	Control parameters	Biological monitoring guidance value	Comments
Xylene, o-, m-, p- or mixed isomers	1330-20-7	650 mmol methyl hippuric acid/mol creatinine in urine	Post shift			

Remark	Notes

8.2 Exposure controls

8.2.1. Appropriate engineering controls: No special requirements.

8.2.2. Personal protection equipment

Eye Protection: Not normally required.

Skin protection: Not normally required.

Respiratory protection: Normally no personal respiratory protection is necessary.

Thermal hazards: Not applicable.

8.2.3. Environmental Exposure Controls: Do not release large quantities into the surface water or into drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Solid. Colour : Various .
Odour	Solvent odour.
Odour threshold	Not known.
pH	Not known.
Melting point/freezing point	Not known.
Initial boiling point and boiling range	Not applicable.

Permanent Marker EK-17,EK-19 and EK-47

Flash Point	Not applicable.
Evaporation rate	Not known.
Flammability (solid, gas)	Non-flammable.
Upper/lower flammability or explosive limits	Not known.
Vapour pressure	Not known.
Vapour density	Not known.
Density (g/ml)	Not known.
Relative density	Not known.
Solubility(ies)	Solubility (Water) : Insoluble in water. Solubility (Other) : Not known.
Partition coefficient: n-octanol/water	Not known.
Auto-ignition temperature	Not known.
Decomposition Temperature (°C)	Not known.
Viscosity	Not known.
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

9.2 Other information

None.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

None anticipated.

10.5 Incompatible materials

Not known.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION

No hazard expected under normal conditions of use.

11.1 Information on toxicological effects

Acute toxicity - Ingestion	Not classified.
Acute toxicity - Skin Contact	Not classified. Calculated acute toxicity estimate (ATE) Calc ATE - 3666.67000
Acute toxicity - Inhalation	Not classified.
Skin corrosion/irritation	Not classified.
Serious eye damage/irritation	Not classified.
Skin sensitization data	Not classified.
Respiratory sensitization data	Not classified.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classified.
Reproductive toxicity	Not classified.
Lactation	Not classified.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Aspiration hazard	Not classified.

11.2 Other information

Not known.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity - Aquatic invertebrates	Low toxicity to invertebrates.
Toxicity - Fish	Low toxicity to fish.
Toxicity - Algae	Low toxicity to algae.
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.

12.2 Persistence and Degradation

Part of the components are biodegradable.

12.3 Bioaccumulative potential

No information on this formulation.

12.4 Mobility in soil

Insoluble in water. The product is predicted to have low mobility in soil.

12.5 Results of PBT and vPvB assessment

Not classified as PBT or vPvB.

12.6 Other adverse effects

Not known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose at suitable refuse site.

13.2 Additional Information

No special precautions are required for this product.

SECTION 14: TRANSPORT INFORMATION

Not classified as hazardous for transport.

14.1 UN number

Not applicable

14.2 UN proper shipping name

Not applicable

14.3 Transport hazard class(es)

Not applicable

14.4 Packing group

Not applicable

14.5 Environmental hazards

Not classified as a Marine Pollutant.

14.6 Special precautions for user

Not known

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

Not known

SECTION 15: REGULATORY INFORMATION

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

European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very High Concern for Authorisation	4-(1,1,3,3-tetramethylbutyl)phenol (140-66-9)
REACH: ANNEX XIV list of substances subject to authorisation	Not listed
REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Xylene (1330-20-7), ethylbenzene (100-41-4), butan-1-ol n-butanol (71-36-3), 4-(1,1,3,3-tetramethylbutyl)phenol (140-66-9)
Community Rolling Action Plan (CoRAP)	Xylene (1330-20-7), butan-1-ol (71-36-3)
Regulation (EC) N° 850/2004 of the European Parliament and of the Council on persistent organic pollutants	Not listed
Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer	Not listed
Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals	Not listed

National regulations

Other	Not known.

15.2 Chemical Safety Assessment

A REACH chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16

LEGEND

Hazard Pictogram(s)	None.
	GHS02: GHS: Flame
	GHS05: GHS: Corrosion
	GHS07: GHS: Exclamation mark

Permanent Marker EK-17,EK-19 and EK-47

	GHS08: GHS: Health hazard GHS09: GHS: Environment
Hazard classification	Flam. Liq. 2 : Flammable liquid, Category 2 Flam. Liq. 3 : Flammable liquid, Category 3 Acute Tox. 4 : Acute toxicity, Category 4 Asp. Tox. 1 : Aspiration hazard, Category 1 Acute Tox. 4 : Acute toxicity, Category 4 Skin Irrit. 2 : Skin corrosion/irritation, Category 2 Eye Dam. 1 : Serious eye damage/irritation, Category 1 Acute Tox. 4 : Acute toxicity, Category 4 STOT SE 3 : Specific target organ toxicity — single exposure, Category 3 STOT SE 3 : Specific target organ toxicity — single exposure, Category 3 STOT RE 2 : Specific target organ toxicity — repeated exposure, Category 2 Aquatic Acute 1 : Hazardous to the aquatic environment, Acute, Category 1 Aquatic Chronic 1 : Hazardous to the aquatic environment, Chronic, Category 1
Hazard Statement(s)	H225: Highly flammable liquid and vapour. H226: Flammable liquid and vapour. H302: Harmful if swallowed. H304: May be fatal if swallowed and enters airways. H312: Harmful in contact with skin. H315: Causes skin irritation. H318: Causes serious eye damage. H332: Harmful if inhaled. H335: May cause respiratory irritation. H336: May cause drowsiness or dizziness. H373: May cause damage to organs through prolonged or repeated exposure. H400: Very toxic to aquatic life. H410: Very toxic to aquatic life with long lasting effects.
Precautionary Statement(s)	None.
Acronyms	CAS : Chemical Abstracts Service CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures DNEL : Derived No Effect Level EC : European Community EINECS : European Inventory of Existing Commercial Chemical Substances LTEL : Long term exposure limit PBT : Persistent, Bioaccumulative and Toxic PNEC : Predicted No Effect Concentration REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals STEL : Short term exposure limit STOT : Specific Target Organ Toxicity vPvB : very Persistent and very Bioaccumulative
Disclaimers	Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Shachihata Inc. gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Shachihata Inc. accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.