



SAFETY DATA SHEET

22.079: Pelikan makeup solution for washable continuous jet ink

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME	22.079: Pelikan makeup solution for washable continuous jet ink		
SUPPLIER	Pelikan Hardcopy European Logistics & Services GmbH Neue Strasse 19 D-52382 Niederzier 2 Germany +49 (0) 2428 830 olaf.lehmann@phiag.com	MANUFACTURER	Pelikan Hardcopy Scotland Ltd Markethill Road Turriff Aberdeenshire AB53 4AW United Kingdom +44 (0) 1888 564200
EMERGENCY TELEPHONE	+44 (0) 1888 564200 (available only during office hours)		

2 HAZARDS IDENTIFICATION

Highly flammable. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness. Irritating to eyes.

PHYSICAL AND CHEMICAL HAZARDS

The product is highly flammable, and explosive vapours/air mixtures may be formed even at normal room temperatures. Vapours are heavier than air and may travel along the floor and in the bottom of containers.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
BUTANONE	201-159-0	78-93-3	60-100%	F;R11 Xi;R36 R66 R67
ETHANOL (denatured)	200-578-6	64-17-5	10-30%	F;R11.

The Full Text for all R-Phrases are Displayed in Section 16

COMPOSITION COMMENTS

This ink does not contain: Substances of Very High Concern (SVHC). The current Candidate List of SVHC for Authorisation can be found (in English only) on the European Chemicals Agency (ECHA) website: http://echa.europa.eu/chem_data/candidate_list_table_en.asp.

4 FIRST-AID MEASURES

GENERAL INFORMATION

Never make an unconscious person vomit or drink fluids!

INHALATION

Remove victim immediately from source of exposure. Provide rest, warmth and fresh air. If respiratory problems, artificial respiration/oxygen. Get medical attention.

INGESTION

Immediately rinse mouth and drink plenty of water or milk. Keep person under observation. Do not induce vomiting. If vomiting occurs, keep head low. Transport immediately to hospital and take these instructions.

SKIN CONTACT

Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

EYE CONTACT

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention immediately. Continue to rinse.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.

SPECIAL FIRE FIGHTING PROCEDURES

Avoid breathing fire vapours. Water spray should be used to cool containers. Keep run-off water out of sewers and water sources. Dike for water control. If risk of water pollution occurs, notify appropriate authorities.

22.079: Pelikan makeup solution for washable continuous jet ink**UNUSUAL FIRE & EXPLOSION HAZARDS**

Vapours may form explosive mixture with air at room temperature. Vapours are heavier than air and may spread near ground to sources of ignition.

SPECIFIC HAZARDS

By heating and fire, toxic vapours/gases may be formed.

PROTECTIVE MEASURES IN FIRE

Use air-supplied respirator during fire fighting. Wear full protective clothing.

6 ACCIDENTAL RELEASE MEASURES**PERSONAL PRECAUTIONS**

Use protective gloves, goggles and suitable protective clothing. Avoid inhalation of vapours and contact with skin and eyes.

ENVIRONMENTAL PRECAUTIONS

Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

SPILL CLEAN UP METHODS

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Clean-up personnel should use respiratory and/or liquid contact protection. Collect with non-combustible absorbent material. Flush with water. Dike for large spills. Transfer to a container for disposal. For waste disposal, see section 13.

7 HANDLING AND STORAGE**USAGE PRECAUTIONS**

Provide good ventilation. Keep away from heat, sparks and open flame. Static electricity and formation of sparks must be prevented. Avoid contact with skin and eyes. Do not eat, drink or smoke when using the product. Observe good industrial hygiene practices.

STORAGE PRECAUTIONS

Keep in a cool, dry, well-ventilated place. Keep containers tightly closed. Keep away from heat, sparks and open flame. Take precautionary measures against static discharges. Store away from Acids. Alkalies. Oxidising material.

STORAGE CLASS

Flammable liquid storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	TWA - 8 hrs		STEL - 15 min		Notes
BUTANONE	WEL	200 ppm(Sk)	600 mg/m3(Sk)	300 ppm(Sk)	899 mg/m3(Sk)	
ETHANOL (denatured)	WEL	1000 ppm	1920 mg/m3			

WEL = Workplace Exposure Limit.

ENGINEERING MEASURES

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined workplace exposure limit is not exceeded. Observe Workplace Exposure Limits and minimise the risk of inhalation of vapours.

RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection must be used if the general level exceeds the Recommended Workplace Exposure Limit.

HAND PROTECTION

Butyl rubber gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

EYE PROTECTION

If risk of splashing, wear safety goggles or face shield.

OTHER PROTECTION

Wear suitable protective clothing as protection against splashing or contamination. Provide eyewash station.

HYGIENE MEASURES

Wash promptly with soap & water if skin becomes contaminated. Wash contaminated clothing before reuse.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Liquid
COLOUR	Colourless
ODOUR	Pleasant, agreeable. Acetone, ketone.
PHYSICAL DATA COMMENTS	Information given concerns the major ingredient.

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VOLATILITY DESCRIPTION	Easily volatile.		
SOLUBILITY	Miscible with water. Organic solvents.		
BOILING POINT (°C)	ca 80	MELTING POINT (°C)	NA
RELATIVE DENSITY	0.81 @ 20 °C	VAPOUR PRESSURE	ca 80 mm Hg @ 20 °C
pH-VALUE, CONC. SOLUTION	NA	VISCOSITY	ND
FLASH POINT (°C)	-9 CC (Closed cup).	AUTO IGNITION	> 400
		TEMPERATURE (°C)	
FLAMMABILITY LIMIT - LOWER(%)	1.8	FLAMMABILITY LIMIT - UPPER(%)	11.5
PARTITION COEFFICIENT (N-Octanol/Water)	ND		

10 STABILITY AND REACTIVITY**STABILITY**

Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition.

MATERIALS TO AVOID

Strong acids. Strong alkalis. Strong oxidising substances.

HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

11 TOXICOLOGICAL INFORMATION**INHALATION**

Vapours irritate the respiratory system, and may cause coughing and difficulties in breathing. In high concentrations, vapours are anaesthetic and may cause headache, fatigue, dizziness and central nervous system effects.

INGESTION

May cause stomach pain or vomiting. May cause severe internal injury. Ingestion of large amounts may cause unconsciousness.

SKIN CONTACT

Prolonged skin contact will result in defatting of the skin, leading to irritation, and in some cases, dermatitis.

EYE CONTACT

Irritating to eyes. Risk of corneal damage.

12 ECOLOGICAL INFORMATION**ECOTOXICITY**

The product is not expected to be hazardous to the environment. Volatile organic compounds (VOC): 75-100%.

MOBILITY

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

BIOACCUMULATION

The product does not contain any substances expected to be bioaccumulating.

DEGRADABILITY

The product is expected to be biodegradable.

WATER HAZARD CLASSIFICATION

WGK 1 (Slight hazard)(Self-classification)

13 DISPOSAL CONSIDERATIONS**GENERAL INFORMATION**

Waste is classified as hazardous waste. Disposal should be in accordance with local, state or national legislation.

DISPOSAL METHODS

Contact specialist disposal companies. Incineration by an approved method could be considered.

WASTE CLASS

List of Wastes (ref: Decision 2000/532/EC): 08 03 12*. Properties of wastes which render them hazardous (ref: Dir 91/689/EEC Ann III): H3-A.

14 TRANSPORT INFORMATION

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UK ROAD CLASS	3		
PROPER SHIPPING NAME	PRINTING INK		
UN NO. ROAD	1210	UK ROAD PACK GR.	II
ADR CLASS NO.	3	ADR PACK GROUP	II
HAZARD No. (ADR)	33	HAZCHEM CODE	3[Y]E
CEPIC TEC(R) NO.	ND	RID CLASS NO.	3
RID PACK GROUP	II	UN NO. SEA	1210
IMDG CLASS	3	IMDG PACK GR.	II
MARINE POLLUTANT	No.	UN NO. AIR	1210
AIR CLASS	3	AIR PACK GR.	II

15 REGULATORY INFORMATION

LABELLING



Irritant



Highly Flammable

RISK PHRASES

R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.
R11	Highly flammable.
R36	Irritating to eyes.

SAFETY PHRASES

S9	Keep container in a well-ventilated place.
S16	Keep away from sources of ignition - No smoking.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S60	This material and its container must be disposed of as hazardous waste.

UK REGULATORY REFERENCES

Health and Safety at Work Act 1974.

ENVIRONMENTAL LISTING

Environmental Protection Act 1990. Pollution Prevention and Control Act 1999.

EU DIRECTIVES

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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

STATUTORY INSTRUMENTS

Chemicals (Hazard Information and Packaging) Regulations. Control of Substances Hazardous to Health.

APPROVED CODE OF PRACTICE

Safety Data Sheets for Substances and Preparations.

GUIDANCE NOTES

Classification and Labelling of Substances and Preparations Dangerous for Supply.

NATIONAL REGULATIONS

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002. No. 1689. Workplace Exposure Limits EH40. Hazardous Waste Regulations 2005. List of Wastes Regulations 2005. The Solvent Emissions Regulations 2004.

16 OTHER INFORMATION

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GENERAL INFORMATION

NA = not applicable. NC = not classified. ND = no data. TWA = time-weighted average. All components are pre-registered at the European Chemicals Agency (ECHA). This Safety Data Sheet satisfies the requirements of the REACH Regulation (EC): No 1907/2006, as corrected. Article 31. The information provided about the product on this Safety Data Sheet has been compiled from knowledge of the individual constituents. The precise composition of this product is proprietary information. More details will be supplied in confidence to qualified medical personnel if specific treatment is necessary. All brand names and trademarks are the property of their respective holders and are used here for descriptive purposes only.

REVISION COMMENTS

Changes to Section(s): 1 3 15 16

REVISION DATE H / 10.06.09

SDS NO. 22.079

RISK PHRASES IN FULL

R11	Highly flammable.
R36	Irritating to eyes.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

DISCLAIMER

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.