Safety data sheet

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

1.1. Product identifier

Code: **SFR00100162AA**

Product name **BALL PEN INK BLACK 2804**

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

Intended use **INK FOR BALL POINT PENS**

Identified Uses	Industrial	Professional	Consumer
Inks	✔	✔	-

Uses Advised Against

Do not use for purposes other than those specified

1.3. Details of the supplier of the safety data sheet

Name **Lyreco**

Full address **Rue du 19 mars**

District and Country **59770 Marly**

France

Tel. +33 (0) 327236400

e-mail address of the competent person

responsible for the Safety Data Sheet **msds@lyreco.com**

1.4. Emergency telephone number

For urgent inquiries refer to **+33 (0) 327236400**

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Eye irritation, category 2	H319	Causes serious eye irritation.

2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Warning

Hazard statements:

H319 Causes serious eye irritation.

Precautionary statements:

P264 Wash thoroughly after handling.
P280 Wear 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.
P337+P313 If eye irritation persists: Get medical advice / attention.

2.3. Other hazards.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification 1272/2008 (CLP).
2-PHENOXYETHANOL		
CAS. 122-99-6 EC. 204-589-7 INDEX. 603-098-00-9 Reg. no. 01-2119488943-21-xxxx	10 - 25	Acute Tox. 4 H302, Eye Irrit. 2 H319
HYDROGEN [1-[(2-HYDROXY-4-NITROPHENYL)AZO]-2-NAPHTHOLATO(2-)][1-[(2-HYDROXY-5-NITROPHENYL)AZO]-2-NAPHTHOLATO(2-)]CHROMATE(1-) , COMPOUND WITH 3-[(2-ETHYLHEXYL)OXY]PROPYLAMINE (1:1)		
CAS. 72812-34-1 EC. 276-857-1 INDEX. -	10 - 25	Aquatic Chronic 4 H413
2-METHYLPENTANE-2,4-DIOL		
CAS. 107-41-5 EC. 203-489-0 INDEX. 603-053-00-3 Reg. no. 01-2119539582-35-xxxx	1 - 10	Eye Irrit. 2 H319, Skin Irrit. 2 H315
BENZYL ALCOHOL		

CAS. 100-51-6 EC. 202-859-9 INDEX. 603-057-00-5 Reg. no. 01-2119492630-38-xxxx	1 - 10	Acute Tox. 4 H302, Acute Tox. 4 H332, Eye Irrit. 2 H319

Note: Upper limit is not included into the range.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Wash immediately with plenty of water. If irritation persists, get medical advice/attention. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. In the event of breathing difficulties, get medical advice/attention immediately.
INGESTION: Get medical advice/attention. Induce vomiting only if indicated by the doctor. Never give anything by mouth to an unconscious person, unless authorised by a doctor.

4.2. Most important symptoms and effects, both acute and delayed.

For symptoms and effects caused by the contained substances, see chap. 11.

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

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT
The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.
UNSUITABLE EXTINGUISHING EQUIPMENT
None in particular.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION
Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always

wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS
Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.
Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.
Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

BGR	България	МИНИСТЕРСТВО НА ТРУДА И СОЦИАЛНАТА ПОЛИТИКА МИНИСТЕРСТВО НА ЗДРАВЕОПАЗВАНЕТО НАРЕДБА No 13 от 30 декември 2003 г
CZE	Česká Republika	Nařízení vlády č. 361/2007 Sb. kterým se stanoví podmínky ochrany zdraví při práci
DEU	Deutschland	MAK-und BAT-Werte-Liste 2012
ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
	TLV-ACGIH	ACGIH 2014

2-PHENOXYETHANOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	110	20	220	40	SKIN.
MAK	DEU	110	20	220	40	SKIN.

Predicted no-effect concentration - PNEC.

Normal value in fresh water	0,943	mg/l
Normal value in marine water	0,0943	mg/l
Normal value for fresh water sediment	7,2366	mg/kg
Normal value for marine water sediment	0,7237	mg/kg
Normal value for water, intermittent release	3,44	mg/l
Normal value of STP microorganisms	24,8	mg/l
Normal value for the terrestrial compartment	1,26	mg/kg

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers.				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.	VND	17,43 mg/kg bw/d	VND	17,43 mg/kg bw/d				
Inhalation.			2,41 mg/m3	2,41 mg/m3			8,07 mg/m3	8,07 mg/m3
Skin.			VND	20,83 mg/kg bw/d			VND	34,72 mg/kg bw/d

HYDROGEN [1-[(2-HYDROXY-4-NITROPHENYL)AZO]-2-NAPHTHOLATO(2-)][1-[(2-HYDROXY-5-NITROPHENYL)AZO]-2-NAPHTHOLATO(2-)]CHROMATE(1-) , COMPOUND WITH 3-[(2-ETHYLHEXYL)OXY]PROPYLAMINE (1:1)

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH		10				INHAL.
TLV-ACGIH		4		10		RESP.

2-METHYLPENTANE-2,4-DIOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
MAK	DEU	49	10	98	20	
VLA	ESP			123	25	

VLEP	FRA			125	25
WEL	GBR	123	25	123	25
TLV-ACGIH				121 (C)	25 (C)

BENZYL ALCOHOL

Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV	BGR	5			
TLV	CZE	40		80	

Predicted no-effect concentration - PNEC.

Normal value in fresh water	1	mg/l
Normal value in marine water	0,1	mg/l
Normal value for fresh water sediment	5,27	mg/kg
Normal value for marine water sediment	0,527	mg/kg
Normal value for water, intermittent release	2,3	mg/l
Normal value of STP microorganisms	39	mg/l
Normal value for the terrestrial compartment	0,456	mg/kg
Normal value for the atmosphere	NPI	

Health - Derived no-effect level - DNEL / DMEL

	Effects on consumers.				Effects on workers			
Route of exposure	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Oral.	VND	20 mg/kg bw/d	VND	4 mg/kg bw/d				
Inhalation.	NPI	27 mg/m3	NPI	5,4 mg/m3	NPI	110 mg/m3	NPI	22 mg/m3
Skin.	NPI	20 mg/kg bw/d	NPI	4 mg/kg bw/d	NPI	40 mg/kg bw/d	NPI	8 mg/kg bw/d

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION
Protect hands with category III work gloves (see standard EN 374).
The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.
The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION
Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION
Wear airtight protective goggles (see standard EN 166).

RESPIRATORY PROTECTION
If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of

various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.
Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.
If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	viscous liquid
Colour	black
Odour	imperceptible
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.
Flash point.	> 90 °C.
Evaporation Rate	Not available.
Flammability of solids and gases	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	Not available.
Vapour density	Not available.
Relative density.	1,100 +/- 0,050
Solubility	immiscible with water
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	not explosive
Oxidising properties	Not available.

9.2. Other information.

VOC (Directive 2010/75/EC) :	30,10 %
VOC (volatile carbon) :	20,81 %

SECTION 10. Stability and reactivity.

10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

2-METHYLPENTANE-2,4-DIOL: decomposes under the effect of heat. Does not have any particular corrosive action on metals. Suitable materials are steel and aluminium.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

2-METHYLPENTANE-2,4-DIOL:avoid exposure to sources of heat and naked flames.

10.5. Incompatible materials.

2-METHYLPENTANE-2,4-DIOL:strong acids and strong oxidising agents.

10.6. Hazardous decomposition products.

Information not available.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.
Acute effects: stinging eyes. Symptoms may include: rubescence, edema, pain and lachrymation. Ingestion may cause health problems, including stomach pain and sting, nausea and sickness.

BENZYL ALCOHOL
LD50 (Oral).1570 mg/kg Rat (Sprague-Dawley) - Standard acute method
LD50 (Dermal).2000 mg/kg Rabbit
LC50 (Inhalation).> 5400 mg/m3/4h Rat - OECD Guideline 403

2-METHYLPENTANE-2,4-DIOL
LD50 (Oral).4700 mg/kg Rat (Sherman) (male) - OECD Guideline 401
LD50 (Dermal).2000 mg/kg Rat - OECD Guideline 402

2-PHENOXYETHANOL
LD50 (Oral).1250 mg/kg Rat
LD50 (Dermal).> 2000 mg/kg Rabbit - OECD TG 404

SECTION 12. Ecological information.

No specific data are available for this product. Handle it according to good working practices. Avoid littering. Do not contaminate soil and waterways. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation. Please take all the proper measures to reduce

harmful effects on aquifers.

12.1. Toxicity.

BENZYL ALCOHOL

LC50 - for Fish.	> 100 mg/l/96h Oryzias latipes - OECD Guideline 203
EC50 - for Crustacea.	230 mg/l/48h Daphnia magna - OECD Guideline 202
EC50 - for Algae / Aquatic Plants.	770 mg/l/72h Pseudokirchnerella subcapitata - OECD Guideline 201
Chronic NOEC for Crustacea.	51 mg/l Daphnia magna - OECD Guideline 211 - Total exposure duration: 21 days
Chronic NOEC for Algae / Aquatic Plants.	310 mg/l Pseudokirchnerella subcapitata - OECD Guideline 201 - Total exposure duration: 72h

2-METHYLPENTANE-2,4-DIOL

LC50 - for Fish.	8690 mg/l/96h Pimephales promelas - OECD Guideline 203
EC50 - for Crustacea.	3200 mg/l/48h Daphnia magna - OECD Guideline 202
EC50 - for Algae / Aquatic Plants.	> 429 mg/l/72h Pseudokirchnerella subcapitata - OECD Guideline 201

2-PHENOXYETHANOL

LC50 - for Fish.	> 100 mg/l/96h Leuciscus idus
EC50 - for Crustacea.	> 500 mg/l/48h Daphnia magna and other aquatic invertebrates
EC50 - for Algae / Aquatic Plants.	> 500 mg/l/72h Algae

12.2. Persistence and degradability.

BENZYL ALCOHOL

Rapidly biodegradable.

% Degradation: 92-96% - Duration of test: 14 days - Method: OECD Guideline 301 C

2-METHYLPENTANE-2,4-DIOL

Solubility in water.	> 10000 mg/l

Rapidly biodegradable.

Method: OECD Guideline 301 F

2-PHENOXYETHANOL

Solubility in water.	24000 mg/l

Rapidly biodegradable.

Degradation: > 90% in 15 days (OECD TG 301 A)

12.3. Bioaccumulative potential.

BENZYL ALCOHOL

Partition coefficient: n-octanol/water.	1,1

2-METHYLPENTANE-2,4-DIOL	
Partition coefficient: n-octanol/water.	< -0,14

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.
CONTAMINATED PACKAGING
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

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 applicable.

14.6. Special precautions for user.

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

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

Seveso category. None.

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.
Point. 3

Substances in Candidate List (Art. 59 REACH).

None.

Substances subject to authorisarion (Annex XIV REACH).

None.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Healthcare controls.

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment.

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Acute Tox. 4	Acute toxicity, category 4
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
Aquatic Chronic 4	Hazardous to the aquatic environment, chronic toxicity, category 4
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H413	May cause long lasting harmful effects to aquatic life.

LEGEND:
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY
1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EU) 1272/2008 (CLP) of the European Parliament

3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:
The following sections were modified:
01 / 09.