Safety Data Sheet

Speedball® Fountain Pen Cartridge

9/7/2016

***Prepared according to EU regulation No. 1907/2006**

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

Product identifier

Product Name	Speedball® Fountain Pen Cartridge
Product Model	Blue, Black, Red, Green etc.
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable
REACH Registration Number	Not applicable

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

Relevant identified uses	Fountain Pen Ink

Details of the supplier of the Safety Data Sheet

Name of the company	Speedball Art Products
Address of the company	2301 Speedball Road, Statesville, NC
Post code	28677
Telephone number	800-898-7224
Fax number	704-838-1472
E-mail address	placeanorder@speedballart.com

Emergency phone number

Emergency phone number	800-898-7224

2 Hazards identification

CLP classification according to Regulation (EC) No. 1272/2008

Sensitization – Skin	Category 1
Specific Target Organ Toxicity (Repeated Exposure)	Category 2

Label elements

Hazard pictograms	
Signal word	**Warning**

Hazard statements

H317	May cause an allergic skin reaction
H373	May cause damage to organs through prolonged or repeated exposure

Precautionary statements

◆ Prevention

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection

◆ Response

P314	Get medical advice/attention if you feel unwell.
P364	And wash it before reuse.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.

◆ Storage

Storage	Not applicable

◆ Disposal

P501	Dispose of contents/container in accordance with local/regional/national/ international regulations.

Other hazards

EUH208	Contains sensitising substance. May produce an allergic reaction

3 Component

Component	Cas No.	EC No.	Index No.	Hazard classification according to CLP	Concentration (weight percent, %)
Fountain pen catridge (Blue)					
AcidinkblueG	28983-56-4	249-352-9	-	Not Classified	2.0
Ethylene glycol	107-21-1	203-473-3	603-027-00-1	Acute Toxicity – Oral , Category 4 , H302	1.0
Fountain pen catridge (Black)					
Direct Black	6428-31-5	229-208-1	-	Not Classified	3.6
Acid Black 1	1064-48-8	213-903-1	-	Sensitization – Skin , Category 1 , H317 ; Specific Target Organ Toxicity (Repeated Exposure) ,Category 1 , H372	2.0
Ethylene glycol	107-21-1	203-473-3	603-027-00-1	Acute Toxicity – Oral , Category 4 , H302	2.0
Sodium hydroxide	1310-73-2	215-185-5	011-002-00-6	Skin Corrosion/Irritation , Category 1A , H314	0.4

Liquid ink pen catridge (Blue)					
Acid blue 1	129-17-9	204-934-1	-	Not Classified	1.1
Ethylene glycol	107-21-1	203-473-3	603-027-00-1	Acute Toxicity – Oral , Category 4 , H302	1.0
Phenol	108-95-2	203-632-7	604-001-00-2	Acute Toxicity – Oral , Category 3 , H301 ; Acute Toxicity – Dermal , Category 3 , H311 ; Skin Corrosion/Irritation , Category 1B , H314 ; Acute Toxicity – Inhalation , Category 3 , H331 ; Germ Cell Mutagenicity , Category 2 , H341 ; Specific Target Organ Toxicity (Repeated Exposure) ,Category 2 , H373	0.1
Liquid ink pen catridge (Red)					
Acid red G	3734-67-6	223-098-9	-	Not Classified	0.9
Eosin A	17372-87-1	241-409-6	-	Eye Damage/Irritation , Category 2A , H319	1.6
Ethylene glycol	107-21-1	203-473-3	603-027-00-1	Acute Toxicity – Oral , Category 4 , H302	1.5
Phenol	108-95-2	203-632-7	604-001-00-2	Acute Toxicity – Oral , Category 3 , H301 ; Acute Toxicity – Dermal , Category 3 , H311 ; Skin Corrosion/Irritation , Category 1B , H314 ; Acute Toxicity – Inhalation , Category 3 , H331 ; Germ Cell Mutagenicity , Category 2 , H341 ; Specific Target Organ Toxicity (Repeated Exposure) ,Category 2 , H373	0.1
Liquid ink pen catridge (Green)					
Patent Blue A	3486-30-4	222-476-0	-	Not Classified	2.5
Ethylene glycol	107-21-1	203-473-3	603-027-00-1	Acute Toxicity – Oral , Category 4 , H302	1.7
Phenol	108-95-2	203-632-7	604-001-00-2	Acute Toxicity – Oral , Category 3 , H301 ; Acute Toxicity – Dermal , Category 3 , H311 ; Skin Corrosion/Irritation , Category 1B , H314 ; Acute Toxicity – Inhalation , Category 3 , H331 ; Germ Cell	0.1

				Mutagenicity , Category 2 , H341 ; Specific Target Organ Toxicity (Repeated Exposure) ,Category 2 , H373	

4 First aid measures

Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if fell uncomfortable.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes and consult a physician if fell uncomfortable.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

Most important symptoms and effects, both acute and delayed

1	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
2	Symptoms may be delayed.

5 Firefighting measures

Extinguishing media

Suitable extinguishing media	Dry chemical, carbon dioxide, water spray, alcohol-resistant foam.
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter or spread fire.

Specific hazards arising from the substance or mixture

1	Containers may explode when heated.
2	Fire exposed containers may vent contents through pressure relief valves.
3	May expansion or decompose explosively when heated or involved in fire.

Advice for firefighters

1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent)and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

1	Ensure adequate ventilation. Remove all sources of ignition.
2	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
3	Use personal protective equipment. Avoid breathing vapours, mist, gas or dust.

Environmental precautions

1	Prevent further leakage or spillage if safe to do so.
2	Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

1	Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
2	Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
3	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

7 Handling and storage

Precautions for handling

◆ Protective measures

1	Handling is performed in a well ventilated place.
2	Wear suitable protective equipment.
3	Avoid contact with skin and eyes.

◆ Measures to prevent fire

1	Take precautionary measures against static discharges.
2	Keep away from heat/sparks/open flames/ hot surfaces.

◆ Measures to prevent aerosol and dust generation

1	Not applicable.

◆ Advice on general occupational hygiene

1	Wash hands and face after using of the substances.
2	Replace the contaminated clothing immediately.

Conditions for safe storage, including any incompatibilities

1	Keep containers tightly closed .
2	Keep containers in a dry, cool and well-ventilated place.
3	Keep away from heat/sparks/open flames/ hot surfaces.
4	Store away from incompatible materials and foodstuff containers.

Specific end uses

1	In addition to use mentioned in the first parts , unforeseen other specific end uses.

8 Exposure controls/personal protection

Control parameters

◆ Occupational Exposure limit values

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m³	ppm	mg/m³
Ethylene glycol 107-21-1	South Korea	-	-	40	100
	New Zealand	-	-	50	127
	Ireland	20	52	40	104
	Germany (AGS)	10	26	20	52
	Denmark	10	26	20	52
	Australia	20	52	40	104
Phenol 108-95-2	USA - OSHA	5	19	-	-
	South Korea	5	19	-	-
	Ireland	2	8	4	16
	Germany (AGS)	2	8	4	16
	Denmark	1	4	2	8
	Australia	1	4	-	-
Sodium hydroxide 1310-73-2	USA - OSHA	-	2	-	-
	Sweden	-	1	-	2
	South Korea	-	-	-	2
	Ireland	-	-	-	2
	Denmark	-	2	-	2
	Australia	-	-	-	2

◆ Biological limit values

Biological limit values	No information available

◆ Monitoring methods

1	EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2	GBZ/T 160.1~GBZ/T 160.81-2004 Determination of toxic substances in workplace air (Series standard).

◆ Derived No effect level(DNEL)

Component	Route of exposure	DNEL for Workers			
		Acute effects(local)	Acute effects(systemic)	Chronic effects(local)	Chronic effects(systemic)
Ethylene glycol 107-21-1	Inhalation	No data available	No data available	35 mg/m3 mg/m3 mg/m3 mg/m3	No data available mg/m3 mg/m3 mg/m3 mg/m3
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Phenol 108-95-2	Inhalation	No data available	No data available	No data available mg/m3 mg/m3 mg/m3 mg/m3	8 mg/m3 mg/m3 mg/m3 mg/m3 mg/m3

	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Sodium hydroxide 1310-73-2	Inhalation	No data available	No data available	1 mg/m3	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available

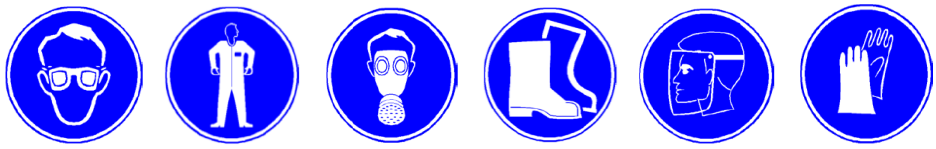
◆ Predicted No Effect Concentration (PNEC)

Predicted No Effect Concentration (PNEC)	No information available

Engineering controls

1	Ensure adequate ventilation, especially in confined areas.
2	Ensure that eyewash stations and safety showers are close to the workstation location.
3	Use explosion-proof electrical/ventilating/lighting/equipment.
4	Set up emergency exit and necessary risk-elimination area.

Personal protection equipment

General requirement	
Eye protection	Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US).
Hand protection	Wear protective gloves (such as butyl rubber) , passing the tests according to EN 374(EU),US F739 or AS/NZS 2161.1 standard.
Respiratory protection	If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.
Skin and body protection	Wear fire/flame resistant/retardant clothing and antistatic boots.

9 Physical and chemical properties

Physical and chemical properties

Appearance	Different color liquid
Odor	No information available
Odor threshold	No information available
pH	3~6
Melting point/freezing point(℃)	≤20
Initial boiling point and boiling range(℃)	>35
Flash point(Closed cup,℃)	The flash point above 93 ℃
Evaporation rate	No information available
Flammability(solid, gas)	Not flammable
Upper/lower explosive limits[%(v/v)]	Upper limit：Not combustible；Lower limit：Not combustible

Vapor pressure(kPa)	No information available
Vapor density(Air = 1)	No information available
Relative density(Water=1)	No information available
Solubility(mg/L)	Miscible with water
n-octanol/water partition coefficient	No information available
Auto-ignition temperature(℃)	Not combustible
Decomposition temperature(℃)	No information available
Viscosity(mm^2/s)	No information available
Explosive properties	Non explosive
Oxidising properties	Not oxidizing

10 Stability and reactivity

Stability and reactivity

Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical stability	Stable under proper operation and storage conditions.
Possibility of hazardous reactions	In contact with oxidants causes severe reactions, and may cause a fire or explosion.. In contact with mixtures of aluminium trichloride and nitro-compounds causes a severe explosion. React violently with acids, phenols or alcohols. hydrogen.
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	Oxidants, alkali metals, alkaline earth metals etc.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

Acute toxicity

Component	Cas No.	LD_{50}(oral)	LD_{50}(dermal)	LC_{50}(inhalation,4h)
Phenol	108-95-2	317mg/kg(Rat)	630mg/kg(Rabbit)	No information available
Eosin A	17372-87-1	2344mg/kg(Mouse)	No information available	No information available
Ethylene glycol	107-21-1	4700mg/kg(Rat)	No information available	No information available

Carcinogenicity

ID	Cas No.	Component	IARC	NTP
1	28983-56-4	AcidinkblueG	Not Listed	Not Listed
2	107-21-1	Ethylene glycol	Not Listed	Not Listed
4	108-95-2	Phenol	Category 3	Not Listed

7	6428-31-5	Direct Black	Not Listed	Not Listed
8	1064-48-8	Acid Black 1	Not Listed	Not Listed
13	1310-73-2	Sodium hydroxide	Not Listed	Not Listed
15	129-17-9	Acid blue 1	Category 3	Not Listed
22	3734-67-6	Acid red G	Not Listed	Not Listed
23	17372-87-1	Eosin A	Not Listed	Not Listed
29	3486-30-4	Patent Blue A	Not Listed	Not Listed

Others

Fountain pen catridge and Liquid ink pen catridge	
Skin corrosion/irritation	No information available
Serious eye damage/irritation	No information available
Skin sensitization	May cause an allergic skin reaction(Category 1)
Respiratory sensitization	No information available
Reproductive toxicity	No information available
STOT-single exposure	No information available
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure(Category 2)
Aspiration hazard	No information available
Germ cell mutagenicity	No information available
Reproductive toxicity	No information available

12 Ecological information

Acute aquatic toxicity

Component	Cas No.	Fish	Crustaceans	Algae
Phenol	108-95-2	LC_{50} : 1.2mg/L (96h)	EC_{50} : 12.6mg/L (48h)	ErC_{50} : 160mg/L (72h)
Ethylene glycol	107-21-1	No information available	EC_{50} : >1100mg/L (48h)	ErC_{50} : >1000mg/L (72h)
Sodium hydroxide	1310-73-2	LC_{50} : 196mg/L (96h)(Fish)	EC_{50} : 40.4mg/L (48h)	No information available

Chronic aquatic toxicity

Component	Cas No.	Fish	Crustaceans	Algae
Phenol	108-95-2	NOEC : 3.7 ~ 12mg/L	NOEC : 25mg/L	Ecx : 20.5mg/L
Ethylene glycol	107-21-1	NOEC : >100mg/L	NOEC : 1000mg/L	NOEC :100mg/L

Others

Persistence and degradability	No information available
Bioaccumulative	No information available

potential	
Mobility in soil	No information available
Results of PBT and vPvB assessment	The product does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

13 Disposal considerations

Disposal considerations

Waste chemicals	If medical advice is needed, have product container or label at hand.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section 13.1and 13.2.

14 Transport information

Label

Label	Not applicable

IMDG-CODE

IMDG-CODE	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

ICAO/IATA-DG

ICAO/IATA-DG	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

UN-ADR

UN-ADR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

15 Regulatory information

International chemical inventory

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AICS
Fountain pen catridge (Blue)								
AcidinkblueG	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Ethylene glycol	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Fountain pen catridge (Black)								
Direct Black	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Acid Black 1	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Ethylene glycol	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Sodium hydroxide	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Water	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Liquid ink pen catridge (Blue)								
Acid blue 1	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed

Ethylene glycol	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Phenol	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Liquid ink pen catridge (Red)								
Acid red G	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Eosin A	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Ethylene glycol	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Phenol	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Liquid ink pen catridge (Green)								
Patent Blue A	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Ethylene glycol	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed
Phenol	Listed	Listed	Listed	Listed	Listed	Listed	Listed	Listed

【EINECS】 European Inventory of Existing Commercial Chemical Substances
【TSCA】 United States Toxic Substances Control Act Inventory
【DSL】 Canadian Domestic Substances List
【IECSC】 China Inventory of Existing Chemical Substances
【NZIoC】 New Zealand Inventory of Chemicals
【PICCS】 Philippines Inventory of Chemicals and Chemical Substances
【KECI】 Existing and Evaluated Chemical Substances
【AICS】 Australia Inventory of Chemical Substances

European chemical inventory

Component	A	B	C	D	E	F	G
Fountain pen catridge (Blue)							
AcidinkblueG	Not Listed	Not Listed	Not Listed	Listed	Not Listed	Not Listed	Not Listed
Ethylene glycol	Not Listed	Not Listed	Not Listed	Listed	Listed	Not Listed	Not Listed
Fountain pen catridge (Black)							
Direct Black	Not Listed	Not Listed	Not Listed	Listed	Listed	Not Listed	Not Listed
Acid Black 1	Not Listed	Not Listed	Not Listed	Listed	Not Listed	Not Listed	Not Listed
Ethylene glycol	Not Listed	Not Listed	Not Listed	Listed	Listed	Not Listed	Not Listed
Sodium hydroxide	Not Listed	Not Listed	Not Listed	Listed	Listed	Not Listed	Not Listed
Liquid ink pen catridge (Blue)							
Acid blue 1	Not Listed	Not Listed	Not Listed	Listed	Not Listed	Not Listed	Not Listed
Ethylene glycol	Not Listed	Not Listed	Not Listed	Listed	Listed	Not Listed	Not Listed
Phenol	Not Listed	Not Listed	Not Listed	Listed	Listed	Listed	Not Listed

Liquid ink pen catridge (Red)							
Acid red G	Not Listed	Not Listed	Not Listed	Listed	Not Listed	Not Listed	Not Listed
Eosin A	Not Listed	Not Listed	Not Listed	Listed	Not Listed	Not Listed	Not Listed
Ethylene glycol	Not Listed	Not Listed	Not Listed	Listed	Listed	Not Listed	Not Listed
Phenol	Not Listed	Not Listed	Not Listed	Listed	Listed	Listed	Not Listed
Liquid ink pen catridge (Green)							
Patent Blue A	Not Listed	Not Listed	Not Listed	Listed	Not Listed	Not Listed	Not Listed
Ethylene glycol	Not Listed	Not Listed	Not Listed	Listed	Listed	Not Listed	Not Listed
Phenol	Not Listed	Not Listed	Not Listed	Listed	Listed	Listed	Not Listed

【A】 Candidate list of Substances of Very High Concern for authorization under EU REACh regulation
【B】 Substances requiring authorisation under EU REACh regulation
【C】 Substances restricted under EU REACh
【D】 Pre-registered substances under EU REACh
【E】 Registered substances under EU REACh
【F】 Substance Evaluation – CoRAP under EU REACh
【G】 List of priority substances under EU water policy （Directive 2455/2001/EC）

16 Others

Information on revision

Creation Date	9/7/16
Revision Date	**9/7/16**
Reason for revision	-

Reference

[1]IPCS:The International Chemical Safety Cards (ICSC) ,website: http://www.ilo.org/dyn/icsc/showcard.home.
[2]IARC，website: http://www.iarc.fr/.
[3]OECD: The Global Portal to Information on Chemical Substances, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en.
[4]CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple.
[5]NLM:ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp.
[6]EPA: Integrated Risk Information System, website: http://cfpub.epa.gov/iris/.
[7]U.S. Department of Transportation:ERG, website: http://www.phmsa.dot.gov/hazmat/library/erg.
[8]Germany GESTIS-database on hazard substance, website: http://gestis-en.itrust.de/.

Abbreviations and acronyms

CAS –Chemical Abstracts Service
PC-STEL- Short term exposure limit
DNEL - Derived No Effect Level
CMR - Carcinogens, mutagens or substances toxic to reproduction
PC-TWA - Time Weighted Average
IARC - International Agency for Research on Cancer

RPE - Respiratory Protective Equipment

PNEC –Predicted No Effect Concentration

LC_{50} - Lethal Concentration 50%

LD_{50} - Lethal Dose 50%

NOEC -No Observed Effect Concentration

EC_{50} - Effective Concentration 50%

PBT - Persistent, Bioaccumulative, Toxic

POW - Partition coefficient Octanol:Water

BCF - Bioconcentration factor (BCF)

vPvB - very Persistent, very Bioaccumulative

IMDG-International Maritime Dangerous Goods

ICAO/IATA-International Civil Aviation Organization/International Air Transportation Association

UN-The United Nations

ACGIH-American Conference of Governmental Industrial Hygienists

NFPA-National Fire Protection Association

OECD-Organization for Economic Co-operation and Development

Disclaimer

This Safety Data Sheet (SDS) was prepared according to REACh Regulation The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user’ s reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.