

Supersedes date 23-Jan-2024

Revision date 04-Apr-2024

Revision Number 4

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product Code(s) TSK364603

Product Name Sigma+ Black

Other means of identification

Pure substance/mixture Mixture

Contains Propanol, 1-aminopropan-2-ol

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

Recommended use ink

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet**Company Name**

Kao Collins Inc.
1201 Edison Drive
Cincinnati, OH 45216
PH: 513-948-9000
Info@kaocollins.com
For further information, please contact

1.4. Emergency telephone number

Emergency Telephone Chemtrec 1-800-424-9300 International Chemtrec: +1 703-527-3887

Emergency Telephone - §45 - (EC)1272/2008**Europe** 112**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids	Category 2 - (H225)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Chronic aquatic toxicity	Category 2 - (H411)

2.2. Label elements

Contains Propanol, 1-aminopropan-2-ol

**Signal word**

Danger

Hazard statements

H225 - Highly flammable liquid and vapor.

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

H411 - Toxic to aquatic life with long lasting effects.

EUH066 - Repeated exposure may cause skin dryness or cracking.

Precautionary Statements - EU (§28, 1272/2008)

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P273 - Avoid release to the environment.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER or doctor.

P370 + P378 - In case of fire: Use dry chemical, CO₂, water spray or alcohol-resistant foam to extinguish.

P391 - Collect spillage.

P403 + P235 - Store in a well-ventilated place. Keep cool.

25.06 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

82.6106 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

99.568 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).

96.7386 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).

29.0174 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Unknown aquatic toxicity

Contains 10.56 % of components with unknown hazards to the aquatic environment.

2.3. Other hazards

May be harmful if swallowed. May be harmful in contact with skin. Toxic to aquatic life.

Endocrine Disruptor Information

This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients**3.1. Substances**

Not applicable

3.2. Mixtures

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Ethyl alcohol 64-17-5	60 - 85	No data available	EEC No. Present	Flam. Liq. 2 (H225) Chronic Aquatic 2 (H411)	-	-	-
Propanol	1 - 15	No data available	EEC No.	Eye Dam. 1 (H318)	-	-	-

71-23-8			Present	STOT SE 3 (H336) Flam. Liq. 2 (H225)			
Hexyl Acetate 142-92-7	1 - 10	No data available		Flam Liq. 3 (H226) Aquatic Acute 2 (H401) Aquatic Chronic 2 (H411)	-	-	-
Acetone 67-64-1	1 - <5	No data available	EEC No. Present	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225) (EUH066)	-	-	-
Isopropyl alcohol 67-63-0	1 - <5	No data available	EEC No. Present	Eye Irrit. 2 (H319) STOT SE 3 (H336) Flam. Liq. 2 (H225)	-	-	-
1-aminopropan-2-ol 78-96-6	0.1 - <2	No data available	EEC No. Present	Flam. Liq. 4 (H227) Acute Tox. 4 (H312) Skin Corr. 1B (H314) Eye Dam/Irrit.1 (H314) Aquatic Acute 3 (H402)	-	-	-
Octamethylcyclotetr asiloxane 556-67-2	0.01 - <0.05	No data available	EEC No. Present	Repr. 2 (H361f) Aquatic Chronic 1 (H410)	-	10	-

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate

No information available

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

NOTE

Remaining components are either not hazardous or below threshold limits.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
Ingestion	Rinse mouth.

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

Symptoms	No information available.
Effects of Exposure	No information available.

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

Note to physicians	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Large Fire CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical No information available.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters**Exposure Limits**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Ethyl alcohol 64-17-5	-	STEL 2000 ppm STEL; 3800 mg/m ³ STEL MAK: 1000 ppm MAK; 1900 mg/m ³ MAK	-	TWA: 1000.0 mg/m ³	MAC: 1000 ppm MAC: 1900 mg/m ³
Propanol 71-23-8	-	MAK: 200 ppm MAK; 500 mg/m ³ MAK	-	STEL: 500.0 mg/m ³ TWA: 300.0 mg/m ³ Skin	MAC: 200 ppm MAC: 500 mg/m ³ STEL: 250 ppm STEL: 625 mg/m ³ Skin
Acetone 67-64-1	-	STEL 2000 ppm STEL; 4800 mg/m ³ STEL MAK: 500 ppm MAK; 1200 mg/m ³ MAK	-	STEL: 1400.0 mg/m ³ TWA: 600 mg/m ³	MAC: 1780 mg/m ³ MAC: 750 ppm STEL: 1000 ppm STEL: 2400 mg/m ³
Isopropyl alcohol 67-63-0	-	STEL 800 ppm STEL; 2000 mg/m ³ STEL MAK: 200 ppm MAK; 500 mg/m ³ MAK	-	STEL: 1225.0 mg/m ³ TWA: 980.0 mg/m ³	MAC: 400 ppm MAC: 980 mg/m ³ STEL: 1225 mg/m ³ STEL: 500 ppm
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Ethyl alcohol 64-17-5	-	-	TWA: 1000 ppm TWA: 1900 mg/m ³	STEL: 1000 ppm STEL: 1900 mg/m ³ TWA: 1000 mg/m ³ TWA: 500 ppm	TWA: 1900 mg/m ³ TWA: 1000 ppm STEL: 2500 mg/m ³ STEL: 1300 ppm
Propanol 71-23-8	-	-	TWA: 200 ppm TWA: 500 mg/m ³ Skin	STEL: 250 ppm STEL: 600 mg/m ³ TWA: 150 ppm TWA: 350 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ STEL: 250 ppm STEL: 620 mg/m ³
Acetone 67-64-1	-	-	TWA: 250 ppm TWA: 600 mg/m ³	TWA: 1210 mg/m ³ TWA: 500 ppm	TWA: 1200 mg/m ³ TWA: 500 ppm STEL: 630 ppm STEL: 1500 mg/m ³
Isopropyl alcohol 67-63-0	-	-	TWA: 200 ppm TWA: 490 mg/m ³	STEL: 250 ppm STEL: 600 mg/m ³ TWA: 150 ppm TWA: 350 mg/m ³	TWA: 500 mg/m ³ TWA: 200 ppm STEL: 620 mg/m ³ STEL: 250 ppm
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Ethyl alcohol 64-17-5	TWA: 1000 ppm TWA: 1900 mg/m ³	TWA: 200 ppm TWA: 380 mg/m ³	TWA: 200 ppm TWA: 380 mg/m ³	-	STEL: 7600 mg/m ³ TWA: 1900 mg/m ³

	STEL: 5000 ppm STEL: 9500 mg/m ³		Ceiling / Peak: 800 ppm Ceiling / Peak: 1520 mg/m ³		
Propanol 71-23-8	TWA: 200 ppm TWA: 500 mg/m ³	-	-	-	-
Acetone 67-64-1	TWA: 500 ppm TWA: 1210 mg/m ³ STEL: 1000 ppm STEL: 2420 mg/m ³	TWA: 500 ppm TWA: 1200 mg/m ³	TWA: 500 ppm TWA: 1200 mg/m ³ Ceiling / Peak: 1000 ppm Ceiling / Peak: 2400 mg/m ³	-	STEL: 2420 mg/m ³ TWA: 1210 mg/m ³
Isopropyl alcohol 67-63-0	STEL: 400 ppm STEL: 980 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ Ceiling / Peak: 400 ppm Ceiling / Peak: 1000 mg/m ³	-	STEL: 2000 mg/m ³ TWA: 500 mg/m ³ Skin
1-aminopropan-2-ol 78-96-6	-	TWA: 2 ppm TWA: 5.8 mg/m ³	TWA: 2 ppm TWA: 5.8 mg/m ³	-	-
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Ethyl alcohol 64-17-5	TWA: 1000 ppm TWA: 1900 mg/m ³	-	-	TWA: 1000 mg/m ³	-
Propanol 71-23-8	TWA: 200 ppm TWA: 500 mg/m ³ STEL: 250 ppm STEL: 625 mg/m ³ Skin	-	-	TWA: 10 mg/m ³	-
Acetone 67-64-1	TWA: 1210 mg/m ³ TWA: 500 ppm	TWA: 1210 mg/m ³ TWA: 500 ppm	-	TWA: 1210 mg/m ³ TWA: 500 ppm	-
Isopropyl alcohol 67-63-0	TWA: 200 ppm Skin	-	-	TWA: 350 mg/m ³ STEL: 600 mg/m ³	-
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Ethyl alcohol 64-17-5	-	-	MAC: 500 ppm MAC; 1000 mg/m ³ MAC	TWA: 500 ppm TWA: 950 mg/m ³ STEL: 1187.5 mg/m ³ STEL: 625 ppm	NDS: 1900 mg/m ³
Propanol 71-23-8	-	-	-	TWA: 100 ppm TWA: 245 mg/m ³ Skin STEL: 150 ppm STEL: 306.25 mg/m ³	NDSch: 600 mg/m ³ NDS: 200 mg/m ³ Skin
Acetone 67-64-1	-	-	STEL: 1004 ppm STEL; 2420 mg/m ³ STEL MAC: 502 ppm MAC; 1210 mg/m ³ MAC	TWA: 125 ppm TWA: 295 mg/m ³ STEL: 156.25 ppm STEL: 368.75 mg/m ³	NDSch: 1800 mg/m ³ NDS: 600 mg/m ³
Isopropyl alcohol 67-63-0	-	-	MAC: 250 ppm MAC; 650 mg/m ³ MAC	TWA: 100 ppm TWA: 245 mg/m ³ STEL: 150 ppm STEL: 306.25 mg/m ³	NDSch: 1200 mg/m ³ NDS: 900 mg/m ³ Skin
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Ethyl alcohol 64-17-5	TWA: 1000 ppm	TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: 5000 ppm STEL: 9500 mg/m ³	TWA: 500 ppm TWA: 960 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³ STEL: STEL ppm STEL: STEL mg/m ³	VLA-ED: 1000 ppm VLA-ED; 1910 mg/m ³ VLA-ED
Propanol 71-23-8	STEL: 250 ppm STEL: 400 ppm	TWA: 200 mg/m ³ TWA: 81 ppm	-	-	S* VLA-EC: 400 ppm

	TWA: 200 ppm	STEL: 203 ppm STEL: 500 mg/m ³			VLA-EC; 1000 mg/m ³ VLA-EC VLA-ED: 200 ppm VLA-ED; 500 mg/m ³ VLA-ED
Acetone 67-64-1	STEL: 750 ppm TWA: 500 ppm	TWA: 1210 mg/m ³ TWA: 500 ppm	TWA: 1210 mg/m ³ TWA: 500 ppm	TWA: 1210 mg/m ³ TWA: 500 ppm	VLA-ED: 500 ppm VLA-ED; 1210 mg/m ³ VLA-ED
Isopropyl alcohol 67-63-0	STEL: 500 ppm STEL: 400 ppm TWA: 200 ppm	TWA: 200 mg/m ³ TWA: 81 ppm STEL: 203 ppm STEL: 500 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³	TWA: 200 ppm TWA: 500 mg/m ³ STEL: STEL mg/m ³ STEL: STEL ppm	VLA-EC: 500 ppm VLA-EC; 1250 mg/m ³ VLA-EC VLA-ED: 400 ppm VLA-ED; 998 mg/m ³ VLA-ED
Chemical name		Sweden	Switzerland		United Kingdom
Ethyl alcohol 64-17-5		-	STEL: 1000 ppm STEL: 1920 mg/m ³		TWA: 1000 ppm TWA: 1920 mg/m ³
Propanol 71-23-8		-	-		STEL: 250 ppm STEL: 625 mg/m ³ TWA: 200 ppm TWA: 500 mg/m ³ Skin
Acetone 67-64-1		-	STEL: 1000 ppm STEL: 2400 mg/m ³		STEL: 1500 ppm STEL: 3620 mg/m ³ TWA: 1210 mg/m ³ TWA: 500 ppm
Isopropyl alcohol 67-63-0		-	STEL: 400 ppm STEL: 1000 mg/m ³		STEL: 1250 mg/m ³ STEL: 500 ppm TWA: 400 ppm TWA: 999 mg/m ³

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers No information available

Derived No Effect Level (DNEL) - General Public No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering controls No information available.

Personal Protective Equipment

Eye/face protection Appropriate eye/face protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction.

Hand protection Appropriate hand protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction.

Skin and body protection Appropriate skin and body protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction.

Respiratory protection	Appropriate respiratory protection should be selected and used according to the chemical nature, hazards and use of this product and safety requirements of the local jurisdiction. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls	No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Black
Color	No information available
Odor	sweet.
Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	No data available	None known
Boiling point / boiling range	> 75 °C	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	11.5 (volume % in Air)	
Lower flammability limit:	1.8 (volume % in Air)	
Flash point	< 17 °C	Seta Closed Cup
Autoignition temperature	No data available	None known
Decomposition temperature		None known
pH	8 - 11	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	< 15 cps	None known
Water solubility	No data available	None known
Solubility(ies)	partly miscible	None known
Partition coefficient	no data available	None known
Vapor pressure	.?1 mmHg @ .?2 °F	None known
Relative density	0.700 - 0.900	None known
Bulk density	no data available	
Liquid Density	no data available	
Vapor density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regard to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous Decomposition Products Carbon oxides.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity

Numerical measures of toxicity

No information available

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	4,629.60 mg/kg
ATEmix (dermal)	3,967.320 mg/kg
ATEmix (inhalation-vapor)	34.70 mg/l
ATEmix (inhalation-dust/mist)	86.80 mg/l

25.06 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
 82.6106 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
 99.568 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
 96.7386 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
 29.0174 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ethyl alcohol	= 7060 mg/kg (Rat)	-	= 116.9 mg/L (Rat) 4 h = 133.8 mg/L (Rat) 4 h
Propanol	= 1870 mg/kg (Rat)	= 4049 mg/kg (Rabbit)	> 33.8 mg/L (Rat) 4 h
Acetone	= 5800 mg/kg (Rat)	> 15700 mg/kg (Rabbit)	= 50100 mg/m ³ (Rat) 8 h
Isopropyl alcohol	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	> 10000 ppm (Rat) 6 h
1-aminopropan-2-ol	= 1715 mg/kg (Rat)	-	-
Octamethylcyclotetrasiloxane	= 1540 mg/kg (Rat)	> 2375 mg/kg (Rat)	= 36 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity This product contains Ethanol which is classified as a possible carcinogen when ingested in the form of an alcoholic beverage. This is irrelevant as this product is used for ink jet ink applications not an alcoholic beverage.

Reproductive toxicity No information available.

Chemical name	European Union
Octamethylcyclotetrasiloxane	Category 3

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No information available.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity The environmental impact of this product has not been fully investigated.

Unknown aquatic toxicity Contains 10.56 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Ethyl alcohol	-	12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through	EC50 = 34634 mg/L 30 min EC50 = 35470 mg/L 5 min	9268 - 14221: 48 h Daphnia magna mg/L LC50 2: 48 h Daphnia magna mg/L EC50 Static
Propanol	-	4480: 96 h Pimephales promelas mg/L LC50 flow-through	EC50 = 17700 mg/L 5 min EC50 = 45000 mg/L 5 h EC50 = 8686 mg/L 15 min EC50 = 980 mg/L 12 h	3642: 48 h Daphnia magna mg/L EC50 3339 - 3977: 48 h Daphnia magna mg/L EC50 Static
Acetone	-	4.74 - 6.33: 96 h Oncorhynchus mykiss mL/L LC50 6210 - 8120: 96 h Pimephales promelas mg/L LC50 static 8300: 96 h Lepomis macrochirus mg/L LC50	EC50 = 14500 mg/L 15 min	10294 - 17704: 48 h Daphnia magna mg/L EC50 Static 12600 - 12700: 48 h Daphnia magna mg/L EC50
Isopropyl alcohol	1000: 96 h Desmodesmus subspicatus mg/L EC50 1000: 72 h Desmodesmus subspicatus mg/L EC50	9640: 96 h Pimephales promelas mg/L LC50 flow-through 11130: 96 h Pimephales promelas mg/L LC50 static 1400000: 96 h Lepomis macrochirus µg/L LC50	EC50 = 35390 mg/L 5 min	13299: 48 h Daphnia magna mg/L EC50
1-aminopropan-2-ol	23: 72 h Desmodesmus subspicatus mg/L EC50	2390 - 2650: 96 h Pimephales promelas mg/L LC50 flow-through	-	108.82: 48 h Daphnia magna Straus mg/L EC50
Octamethylcyclotetrasiloxane	-	500: 96 h Brachydanio rerio mg/L LC50 1000: 96 h Lepomis macrochirus mg/L LC50	-	-

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Chemical name	Partition coefficient
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Ethyl alcohol	-0.35
Propanol	0.2
Acetone	-0.24
Isopropyl alcohol	0.05
1-aminopropan-2-ol	-0.94
Octamethylcyclotetrasiloxane	6.488

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB above the threshold of declaration.

12.6. Endocrine disrupting properties

Endocrine disrupting properties No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

Other Information According to the European Waste Catalog, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information**IATA**

14.1 UN number or ID number UN1210
 14.2 UN proper shipping name Printing Ink, Flammable
 14.3 Transport hazard class(es) 3
 14.4 Packing group II
 14.5 Environmental hazard Not applicable
 14.6 Special precautions for user
 Special Provisions None

IMDG/IMO

14.1 UN number or ID number UN1210
 14.2 UN proper shipping name Printing Ink, Flammable
 14.3 Hazard Class 3
 14.4 Packing group II
 14.5 Environmental hazard Not applicable
 14.6 Special precautions for user
 Special Provisions None
 14.7 Maritime transport in bulk No information available

according to IMO instruments

RID

14.1 UN-No	Not Evaluated
14.2 UN proper shipping name	Not Evaluated
14.3 Hazard Class	Not Evaluated
14.4 Packing group	Not Evaluated
14.5 Environmental hazard	Not applicable
14.6 Special precautions for user	
Special Provisions	None
Classification code	Not Evaluated

ADR

14.1 UN-No	UN1210
14.2 UN proper shipping name	Printing Ink, Flammable
14.3 Hazard Class	3
14.4 Packing group	II
14.5 Environmental hazard	Not applicable
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information

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

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
Propanol - 71-23-8	75.	-
Acetone - 67-64-1	75.	-
Isopropyl alcohol - 67-63-0	75.	-
1-aminopropan-2-ol - 78-96-6	75.	-
Octamethylcyclotetrasiloxane - 556-67-2	70. 75.	-

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

TSCA	- United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL	- Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS	- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS	- Japan Existing and New Chemical Substances
IECSC	- China Inventory of Existing Chemical Substances
KECL	- Korean Existing and Evaluated Chemical Substances
PICCS	- Philippines Inventory of Chemicals and Chemical Substances
AICS	- Australian Inventory of Chemical Substances
NZIoC	- New Zealand Inventory of Chemicals

15.2. Chemical safety assessment

Chemical Safety Report	No information available
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SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

EUH066	- Repeated exposure may cause skin dryness or cracking
H225	- Highly flammable liquid and vapor
H226	- Flammable liquid and vapor
H227	- Combustible liquid
H312	- Harmful in contact with skin
H314	- Causes severe skin burns and eye damage
H318	- Causes serious eye damage
H319	- Causes serious eye irritation
H336	- May cause drowsiness or dizziness
H361f	- Suspected of damaging fertility
H401	- Toxic to aquatic life
H402	- Harmful to aquatic life
H410	- Very toxic to aquatic life with long lasting effects
H411	- Toxic to aquatic life with long lasting effects

Legend

SVHC:	Substances of Very High Concern for Authorization:
PBT:	Persistent, Bioaccumulative, and Toxic (PBT) Substances
vPvB:	Very Persistent and very Bioaccumulative (vPvB) Substances
STOT:	Specific Target Organ Toxicity
ATE:	Acute Toxicity Estimate
LC50:	50% Lethal Concentration
LD50:	50% Lethal Dose

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

+ Sensitizers

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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End of Safety Data Sheet