



SAFETY DATA SHEET JAM2000 Black (SB) Ink

1. Identification

Product identifier

Product name JAM2000 Black (SB) Ink

Product number 71000699, 71000700, 71000701, 71000702, 71000704

Container size 6 x 1 Liter, 2 x 4 Liter, 4 x 4 Liter, 5 Gallon Pail, 55 Gallon Drum

Recommended use of the chemical and restrictions on use

Application Printing ink.

Uses advised against Use only for intended applications.

Details of the supplier of the safety data sheet

Supplier Matthews Marking Systems
3159 Unionville Road, Suite 500
Cranberry Township, PA 16066
412.665.2500
412.828.4545
info@matw.com

Manufacturer Matthews Marking Systems
Zona Franca La Lima
Multitenant #8
Cartago, Costa Rica 30106
(506) 4000-1103

Emergency telephone number

Emergency telephone Chemtrec US : 1-800-424-9300 Chemtrec World: 1-703-527-3887

2. Hazard(s) identification

Classification of the substance or mixture

OSHA Regulatory Status This Product is Hazardous under the OSHA Hazard Communication Standard.

Physical hazards Flam. Liq. 2 - H225

Health hazards Skin Irrit. 2 - H315 Eye Dam. 1 - H318 STOT SE 3 - H336 Asp. Tox. 1 - H304

Environmental hazards Aquatic Acute 2 - H401 Aquatic Chronic 2 - H411

Label elements

Hazard symbols



Signal word

Danger

JAM2000 Black (SB) Ink

Composition comments This material does not contain any Hazardous Air Pollutants (HAPS) as defined by the Clean Air Act under the US Environmental Protection Agency (EPA).

Ingredient notes The exact percentage/concentration is withheld as a trade secret in accordance with 29 CFR 1910.1200. The exact identity is withheld as a trade secret in accordance with 29 CFR 1910.1200.

4. First-aid measures

Description of first aid measures

General information Consult a physician for specific advice. If medical advice is needed, have product container or label at hand. If in doubt, get medical attention promptly. Show this Safety Data Sheet to the medical personnel.

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. Do not induce vomiting. Consult a physician for specific advice.

Ingestion Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash skin thoroughly with soap and water. Get medical attention. Wash clothing and clean shoes thoroughly before reuse.

Eye contact Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

General information The product is considered to be a low hazard under normal conditions of use. The severity of the symptoms described will vary dependent on the concentration and the length of exposure. See Section 11 for additional information on health hazards.

Inhalation May cause respiratory system irritation. Overexposure may depress the central nervous system, causing dizziness and intoxication. Vapors may cause headache, fatigue, dizziness and nausea.

Ingestion This product is moderately irritating. Aspiration hazard if swallowed. May be fatal if swallowed and enters airways. May cause nausea, headache, dizziness and intoxication.

Skin contact This product is moderately irritating. Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.

Eye contact May cause eye irritation. Vapor or spray in the eyes may cause irritation and smarting. Symptoms following overexposure may include the following: Profuse watering of the eyes. Irritation and redness, followed by blurred vision.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Water spray.

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Special hazards arising from the substance or mixture

Flammability Class	7.1 Flammable Liquid IB.
Specific hazards	Flammable liquid and vapour. Vapors are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO ₂). Carbon monoxide (CO).
<u>Advice for firefighters</u>	
Protective actions during firefighting	Evacuate area. Stop leak if safe to do so. Use water to keep fire exposed containers cool and disperse vapors. Use water spray to reduce vapors.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	No smoking, sparks, flames or other sources of ignition near spillage. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapors. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place.
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Environmental precautions

Environmental precautions	Avoid release to the environment. Do not discharge into drains or watercourses or onto the ground. Use appropriate containment to avoid environmental contamination. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.
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Methods and material for containment and cleaning up

Methods for cleaning up	Eliminate all sources of ignition. Stop leak if safe to do so. Do not touch or walk into spilled material. Take care as floors and other surfaces may become slippery. Contain and absorb spillage with sand, earth or other non-combustible material. Collect and place in suitable waste disposal containers and seal securely. When handling waste, the safety precautions applying to handling of the product should be considered. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
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Reference to other sections	For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.
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7. Handling and storage

Precautions for safe handling

Usage precautions	Wear protective clothing as described in Section 8 of this safety data sheet.
Advice on general occupational hygiene	Do not eat, drink or smoke when using this product. Provide eyewash station and safety shower. Good personal hygiene procedures should be implemented. Wash skin thoroughly after handling. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage precautions	Store at temperatures between 4.4°C/40°F and 32.2°C/90°F. Keep only in the original container in a cool, well-ventilated place. Protect from freezing and direct sunlight. Container must be kept tightly closed when not in use. Keep containers upright. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store in accordance with national regulations.
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Storage class Flammable liquid storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

N-Propanol

Long-term exposure limit (8-hour TWA): ACGIH 100 ppm 246 mg/m³
A4

Long-term exposure limit (8-hour TWA): OSHA 200 ppm 500 mg/m³

Heptane

Long-term exposure limit (8-hour TWA): ACGIH 400 ppm 1640 mg/m³

Short-term exposure limit (15-minute): ACGIH 500 ppm 2050 mg/m³

Long-term exposure limit (8-hour TWA): OSHA 500 ppm 2000 mg/m³

Valifast Black 3830

as CrO₃

Exposure limit: OSHA 0.5 mg/m³

Exposure limit: ACGIH 0.5 mg/m³

Polyamide Resin

Long-term exposure limit (8-hour TWA): OSHA 5 mg/m³ 15 mg/m³ respirable fraction, total dust

ACGIH = American Conference of Governmental Industrial Hygienists.

OSHA = Occupational Safety and Health Administration.

A4 = Not Classifiable as a Human Carcinogen.

Ingredient comments Data based on literature. Product not tested.

N-Propanol (CAS: 71-23-8)

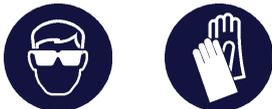
Immediate danger to life and health 800 ppm

Heptane (CAS: 142-82-5)

Immediate danger to life and health 750 ppm

Exposure controls

Protective equipment



Appropriate engineering controls

As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapor or mist. Use explosion-proof ventilating equipment.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield.

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Hand protection	It is recommended that chemical-resistant, impervious gloves are worn. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. It is recommended that gloves are made of the following material: Butyl rubber. Nitrile rubber. Rubber (natural, latex). Frequent changes are recommended.
Other skin and body protection	Avoid contact with skin. Wear appropriate clothing to prevent repeated or prolonged skin contact.
Hygiene measures	Wash contaminated skin thoroughly after handling. Provide eyewash station and safety shower.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Organic vapor filter.
Thermal hazards	If there is a risk of contact with hot product, all protective equipment worn should be suitable for use with high temperatures.
Environmental exposure controls	Keep container tightly sealed when not in use.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Black.
Odor	Alcoholic. Hydrocarbons.
Melting point	-91°C/-132°F
Initial boiling point and range	97°C/207°F @ 760 mm Hg
Flash point	21.7°C/71°F Closed cup.
Evaporation rate	3.3 (butyl acetate = 1)
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: 14 % vol Lower flammable/explosive limit: 1.1 % vol
Vapor pressure	40.0 mm Hg @ 20°C/68°F
Vapor density	3.5
Relative density	0.805 g/cc 805 g/l 6.70 lbs/gal
Solubility(ies)	Soluble in the following materials: Alcohols. Hydrocarbons. Slightly soluble in water.
Partition coefficient	log Pow: 5.0
Auto-ignition temperature	223°C/433.4°F
Decomposition Temperature	Not applicable.
Explosive properties	Not applicable.
Oxidizing properties	Not applicable.
Comments	Information given is applicable to the product as supplied. Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures.
Volatile organic compound	This product contains a maximum VOC content of 760 g/l. This product contains a maximum VOC content of 6.33 lbs/gal.

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HAPS Content 0.00

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	Stable at normal ambient temperatures and when used as recommended.
Conditions to avoid	Avoid the following conditions: Heat, sparks, flames. Freezing.
Materials to avoid	Avoid contact with the following materials: Strong oxidizing agents.
Hazardous decomposition products	Heating may generate the following products: Carbon dioxide (CO ₂). Carbon monoxide (CO).

11. Toxicological information

Information on toxicological effects

Toxicological effects Information given is based on data of the components and of similar products.

Specific target organ toxicity - single exposure

Target organs Central nervous system Eyes Gastro-intestinal tract Respiratory system, lungs Skin

Specific target organ toxicity - repeated exposure

Target organs Gastro-intestinal tract Respiratory system, lungs Skin

Aspiration hazard

Aspiration hazard Aspiration hazard if swallowed. May be fatal if swallowed and enters airways.

Toxicological information on ingredients.

N-Propanol

Acute toxicity - inhalation

Acute toxicity inhalation 9.9
(LC₅₀ dust/mist mg/l)

ATE inhalation 9.9
(dusts/mists mg/l)

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Specific target organ toxicity - single exposure

Target organs Central nervous system

Heptane

Acute toxicity - inhalation

Acute toxicity inhalation 29.3
(LC₅₀ vapours mg/l)

ATE inhalation (vapours 29.3
mg/l)

Skin corrosion/irritation

Skin corrosion/irritation Irritating to skin.

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Serious eye damage/irritation

Serious eye damage/irritation Causes eye irritation.

Aspiration hazard

Aspiration hazard May be fatal if swallowed and enters airways.

Polyamide Resin

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 20,000.0

Species Rat

ATE oral (mg/kg) 20,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 6,000.0

Species Rabbit

ATE dermal (mg/kg) 6,000.0

Serious eye damage/irritation

Serious eye damage/irritation Irritation of eyes is assumed. Slightly irritating.

Respiratory sensitization

Respiratory sensitization Based on available data the classification criteria are not met.

Skin sensitization

Skin sensitization No known significant effects or critical hazards.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

12. Ecological information

Ecological information on ingredients.

N-Propanol

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: > 804 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates LC₅₀, 96 hours: > 804 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 48 hours: >100 mg/l, Pseudokirchneriella subcapitata

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates NOEC, 21 days: >100 mg/l, Daphnia magna

Heptane

JAM2000 Black (SB) Ink

Acute aquatic toxicity

LE(C) ₅₀	0.1 < L(E)C ₅₀ ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LL ₅₀ , 96 hours: 1.284 mg/l, Oncorhynchus mykiss (Rainbow trout) LC ₅₀ , 96 hours: 375 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 1.5 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 4.338 mg/l, Pseudokirchneriella subcapitata
<u>Chronic aquatic toxicity</u>	
M factor (Chronic)	1
Chronic toxicity - fish early life stage	NOEC, 28 days: 1.28 mg/l, Oncorhynchus mykiss (Rainbow trout)
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 1.0 mg/l, Daphnia magna

Polyamide Resin

Acute aquatic toxicity

Acute toxicity - aquatic invertebrates	NOEC, 48 hours: > 1000 mg/l, Daphnia magna
Acute toxicity - microorganisms	EC ₅₀ , 16 hours: > 1000 mg/l,

Persistence and degradability

Ecological information on ingredients.

N-Propanol

Persistence and degradability	The product is readily biodegradable.
Biodegradation	Soil - Degradation 75%: 20 days
Biological oxygen demand	<2000 mg O ₂ /l
Chemical oxygen demand	0.071 g O ₂ /g substance

Heptane

Persistence and degradability	The product is readily biodegradable.
Biodegradation	Soil - Degradation 70%: 10 days

Bioaccumulative potential

Partition coefficient	log Pow: 5.0
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13. Disposal considerations

Waste treatment methods

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General information

The generation of waste should be minimized or avoided wherever possible. When handling waste, the safety precautions applying to handling of the product should be considered. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Dispose of waste product or used containers in accordance with local regulations. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

Disposal methods

Dispose of contents/container in accordance with national regulations. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

UN Number

UN No. (TDG)	1210
UN No. (IMDG)	1210
UN No. (ICAO)	1210
UN No. (DOT)	1210

UN proper shipping name

Proper shipping name (TDG)	PRINTING INK
Proper shipping name (IMDG)	PRINTING INK
Proper shipping name (ICAO)	PRINTING INK
Proper shipping name (DOT)	PRINTING INK

Transport hazard class(es)

TDG class	3
TDG label(s)	3
IMDG Class	3
ICAO class/division	3

Transport labels



Packing group

TDG Packing Group	II
IMDG packing group	II
ICAO packing group	II
DOT packing group	II

Environmental hazards

Environmentally Hazardous Substance
No.

Special precautions for user

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EmS

F-E, S-D

15. Regulatory information

Regulatory References OSHA Hazard Communication Standard, 29 CFR 1910.1200

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

Polyamide Resin

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

Polyamide Resin

Isobutanol

Ethylbenzene

Xylene

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

Polyamide Resin

SARA 313 Emission Reporting

Polyamide Resin

Ethyl Cellulose N300

Ethylbenzene

Xylene

SARA (311/312) Hazard Categories

N-Propanol

Heptane

Polyamide Resin

Ethyl Cellulose N300

Isobutanol

Ethylbenzene

Xylene

OSHA Highly Hazardous Chemicals

N-Propanol

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

Ethyl Cellulose N300

Does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Carbowax 400

Does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Ethylbenzene

JAM2000 Black (SB) Ink

Carcinogen.

Xylene

Carcinogen.

California Air Toxics "Hot Spots" (A-I)

Ethylbenzene

Xylene

California Directors List of Hazardous Substances

The following ingredients are listed:

N-Propanol

Heptane

Polyamide Resin

Isobutanol

Ethylbenzene

Xylene

Massachusetts "Right To Know" List

The following ingredients are listed:

N-Propanol

Heptane

Polyamide Resin

Isobutanol

Ethylbenzene

Xylene

Rhode Island "Right To Know" List

The following ingredients are listed:

N-Propanol

Heptane

Polyamide Resin

Isobutanol

Ethylbenzene

Xylene

Minnesota "Right To Know" List

The following ingredients are listed:

N-Propanol

Heptane

Isobutanol

Ethylbenzene

Xylene

New Jersey "Right To Know" List

The following ingredients are listed:

N-Propanol

JAM2000 Black (SB) Ink

Heptane

Polyamide Resin

Isobutanol

Ethylbenzene

Xylene

Pennsylvania "Right To Know" List

The following ingredients are listed:

N-Propanol

Heptane

Polyamide Resin

Isobutanol

Ethylbenzene

Xylene

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA

All the ingredients are listed or exempt.

Australia - AICS

N-Propanol

Heptane

Ethyl Cellulose N300

Isobutanol

Ethylbenzene

Xylene

Japan - ENCS

N-Propanol

Heptane

Ethyl Cellulose N300

Isobutanol

Ethylbenzene

Xylene

Korea - KECl

N-Propanol

Heptane

Ethyl Cellulose N300

JAM2000 Black (SB) Ink

Isobutanol

Ethylbenzene

Xylene

China - IECSC

N-Propanol

Heptane

Ethyl Cellulose N300

Isobutanol

Ethylbenzene

Xylene

Philippines - PICCS

The following ingredients are listed:

N-Propanol

Heptane

Ethyl Cellulose N300

Isobutanol

Ethylbenzene

Xylene

New Zealand - NZIOC

N-Propanol

Heptane

Ethyl Cellulose N300

Isobutanol

Ethylbenzene

Xylene

Taiwan - TCSI

The following ingredients are listed:

N-Propanol

Heptane

Isobutanol

Ethylbenzene

Xylene

16. Other information

Issued by	Matthews Marking Systems - Chemical Services Department
Revision date	4/28/2020
Revision	4
Supersedes date	6/6/2017
SDS No.	5306

JAM2000 Black (SB) Ink

SDS status	Approved.
Hazard statements in full	H225 Highly flammable liquid and vapor. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H318 Causes serious eye damage. H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H401 Toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. USH01 May form combustible dust concentrations in air.
NFPA - health hazard	Temporary incapacitation, injury. (2)
NFPA - flammability hazard	Ignites easily. (3)
NFPA - instability hazard	Normally stable. (0)
ACA HMIS Health rating.	Moderate hazard. (2) Chronic hazard. (*)
ACA HMIS Flammability rating.	Ignites easily. (3)
ACA HMIS Physical hazard rating.	Normally stable. (0)
ACA HMIS Personal protection rating.	C

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.