Safety Data Sheet
51-0018-01 Ink, Black to Blue MEK Free

According to Regulation (EC) No. 1907/2006 as amended by (EC) No. 2020/878; US OSHA 29CFR 1910.1200.
Version 1.1 • Date of issue: 12-15-2025

1. IDENTIFICATION

Product identifier

Product Code(s)	51-0018-01
Product name	Black to Blue MEK Free Ink
Product category	Ink Product

Other means of identification Synonyms
None

Recommended use of the chemical and restrictions on use

Recommended use	Industrial Printing Operations

Details of the supplier of the safety data sheet

Name	BestCode
Address	3034 SE Loop 820 Fort Worth TX 76140 USA
Telephone	817-349-8555
email Info@Bestcode.co	

1.5 Emergency phone number

Chem Tel. Inc. Toll Free	800-255-3924
International	813-248-0585

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Oral	Category 4 - (H302)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Germ cell mutagenicity	Category 2 - (H341)
Hazardous to the aquatic environment - acute	Category 1 - (H400)
Hazardous to the aquatic environment - chronic	Category 2 - (H411)
Flammable liquids	Category 2 - (H225)

Label elements

Signal word
Danger

Hazard statements
H225 - Highly flammable liquid and vapor
H302 - Harmful if swallowed
H315 - Causes skin irritation
H318 - Causes serious eye damage
H341 - Suspected of causing genetic defects
H400 - Very toxic to aquatic life
H411 - Toxic to aquatic life with long lasting effects

Precautionary Statements
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P273 - Avoid release to the environment
P280 - Wear protective gloves, protective clothing, eye protection and 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
P310 - Immediately call a POISON CENTER or doctor
P403 + P235 - Store in a well-ventilated place. Keep cool

Hazards not otherwise classified (HNOC) No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical name	CAS No.	Weight-%	Trade secret	Note
2-Pentanone	107-87-9	30 - 60	*	
Ethyl alcohol	64-17-5	10 - 30	*	
Additive	Not Available	5 - 10	*	
Phenol	108-95-2	1 - 5	*	
1-Butanol	71-36-3	1 - 5	*	
2-Butoxyethanol	111-76-2	0.1 - < 1	*	

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

Description of first aid measures

General Advice Show this safety data sheet to the doctor in attendance.
Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if irritation develops and persists.
Skin Contact Wash off immediately with soap and plenty of water for at least 15 minutes. Remove

contaminated clothing. If irritation (redness, rash, blistering) develops, get medical attention.

Inhalation Remove person to fresh air and keep comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Get medical attention immediately.

Ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

Most important symptoms and effects, both acute and delayed None under normal use conditions.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam. Carbon dioxide (CO2). Dry chemical. Water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

No information available.

Special Provisions

Thermal decomposition can lead to release of irritating gases and vapors. May emit toxic fumes under fire conditions.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers / tanks with water spray. Sealed containers may rupture when heated.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Remove all sources of ignition. Ventilate the area. Avoid contact with eyes, skin and clothing. Avoid breathing dust or vapor. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers, ditches and waterways. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Use clean non-sparking tools to collect absorbed material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep container closed when not in use. Keep out of the reach of children.

Incompatible Products Strong acids. Strong bases. Strong oxidizing agents. Reducing agent.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Exposure limits

Chemical name	**ACGIH TLV**
2-Pentanone 107-87-9	STEL: 150 ppm
Ethyl alcohol 64-17-5	STEL: 1000 ppm
Phenol 108-95-2	TWA: 5 ppm Sk*
1-Butanol 71-36-3	TWA: 20 ppm
2-Butoxyethanol 111-76-2	TWA: 20 ppm
Chemical name	**OSHA PEL**
2-Pentanone 107-87-9	TWA: 200 ppm TWA: 700 mg/m^3
Ethyl alcohol 64-17-5	TWA: 1000 ppm TWA: 1900 mg/m^3
Phenol 108-95-2	TWA: 5 ppm TWA: 19 mg/m^3 Skin
1-Butanol 71-36-3	TWA: 100 ppm TWA: 300 mg/m^3
2-Butoxyethanol 111-76-2	TWA: 50 ppm TWA: 240 mg/m^3 Skin
Chemical name	**OSHA PEL (vacated)**
2-Pentanone 107-87-9	TWA: 200 ppm TWA: 700 mg/m^3 STEL: 250 ppm STEL: 875 mg/m^3
Ethyl alcohol 64-17-5	TWA: 1000 ppm TWA: 1900 mg/m^3
Phenol 108-95-2	TWA: 5 ppm TWA: 19 mg/m^3 Skin
1-Butanol 71-36-3	Ceiling: 50 ppm Ceiling: 150 mg/m^3 Skin
2-Butoxyethanol 111-76-2	TWA: 25 ppm TWA: 120 mg/m^3 Skin
Chemical name	**Mexico OEL (TWA)**
2-Pentanone 107-87-9	STEL/VLE-CT: 150 ppm
Ethyl alcohol 64-17-5	STEL/VLE-CT: 1000 ppm
Phenol 108-95-2	TWA/VLE-PPT: 5 ppm
1-Butanol 71-36-3	TWA/VLE-PPT: 20 ppm
2-Butoxyethanol 111-76-2	TWA/VLE-PPT: 20 ppm

Appropriate engineering controls

Engineering Measures Provide a good standard of general ventilation. Natural ventilation is from doors, windows

etc. Controlled ventilation means air is supplied or removed by a powered fan. Users are advised to consider national Occupational Exposure Limits or other equivalent values. In case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Wear safety glasses with side shields (or goggles). If splashes are likely to occur:. Wear suitable face shield. Ensure that eyewash stations and safety showers are close to the workstation location.

Skin Protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Hand Protection Chemical resistant protective gloves.

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding >480 minutes of permeation time): eg. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers. Taking into account the varying conditions, the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.
Due to different glove types, the manufacturer's directions for use should be observed. Replace gloves immediately when torn or any change in appearance is noticed such as dimension, color, flexibility.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Wash hands before eating, drinking or smoking. Wash contaminated clothing before reuse. Avoid contact with eyes, skin and clothing. Wear suitable gloves and eye/face protection. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	**Appearance**	Colored
Odor	No information available	**Odor threshold**	No information available

Property	**Values pH**	**Remarks • Method**
Melting point / freezing point	No information available	No data available
Initial boiling point and boiling range	> 56 °C / 133 °F	No data available

Flash point	8 °C / 46 °F	
Evaporation rate		Tag closed cup (Minimum)
Flammability Limit in Air		No data available
Upper flammability or explosive limits		No data available
Lower flammability or explosive limits		No data available
Vapor pressure		
Relative vapor density		No data available
Specific gravity - VALUE 1	0.87	No data available
Water Solubility		
Solubility in other solvents		No data available
Partition coefficient	No information available	No data available
Autoignition temperature		No data available
Hyphen		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available
		No data available
Explosive properties	No data available	
Oxidizing Properties	No data available	

Other information

Photochemically Reactive	No
Weight Per Gallon (lbs/gal)	7.27

VOC by weight % (less water)	VOC by volume % (less water)	VOC lbs/gal (less water)	VOC grams/liter (less water)
78.47	No information available	5.71	684.26

10. STABILITY AND REACTIVITY

Reactivity
No information available.

Chemical stability
Stable under normal conditions.

Possibility of hazardous reactions None
under normal processing.

Conditions to avoid
Keep away from open flames, hot surfaces and sources of ignition.

Incompatible materials
Strong acids. Strong bases. Strong oxidizing agents. Reducing agent.

Hazardous decomposition products
Thermal decomposition can lead to release of irritating gases and vapors. Carbon dioxide (CO2). Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

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. Harmful if swallowed. (based on components).

Chemical name	Oral LD50
2-Pentanone 107-87-9	= 1600 mg/kg (Rat)
Ethyl alcohol 64-17-5	= 7060 mg/kg (Rat)
Phenol 108-95-2	= 340 mg/kg (Rat)
1-Butanol 71-36-3	= 700 mg/kg (Rat)
2-Butoxyethanol 111-76-2	= 470 mg/kg (Rat)
Chemical name	**Dermal LD50**
2-Pentanone 107-87-9	= 6480 mg/kg (Rat)
Phenol 108-95-2	= 630 mg/kg (Rabbit)
1-Butanol 71-36-3	= 3402 mg/kg (Rabbit)
2-Butoxyethanol 111-76-2	= 435 mg/kg (Rabbit)
Chemical name	**Inhalation LC50**
2-Pentanone 107-87-9	2000 - 4000 ppm (Rat) 4 h
Ethyl alcohol 64-17-5	= 116.9 mg/L (Rat) 4 h = 133.8 mg/L (Rat) 4 h
1-Butanol	> 8000 ppm (Rat) 4 h
71-36-3	
2-Butoxyethanol 111-76-2	= 450 ppm (Rat) 4 h = 486 ppm (Rat) 4 h

Symptoms related to the physical, chemical and toxicological characteristics

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

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

Skin corrosion/irritation Causes skin irritation (pain, redness and swelling). The statement is derived from products of similar structure or composition with appropriate test data. OECD Test No. 435: In Vitro Membrane Barrier Test Method for Skin Corrosion.

Eye damage/irritation Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components).

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

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

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

Mutagenic Effects Specific test data for the substance or mixture is not available. Suspected of causing genetic defects. (based on components).

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

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

STOT - single exposure Specific test data for the substance or mixture is not available.

STOT - repeated exposure Specific test data for the substance or mixture is not available.

Chronic Toxicity Specific test data for the substance or mixture is not available

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

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH
Ethyl alcohol 64-17-5	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
Phenol 108-95-2	A4 - Not Classifiable as a Human Carcinogen
2-Butoxyethanol 111-76-2	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

Numerical measures of toxicity - Product Information

Unknown acute toxicity 0 % of the mixture consists of ingredient(s) of unknown toxicity

The following ATE values have been calculated for the mixture

ATEmix (oral)	1,699.40
ATEmix (dermal)	4,654.90
ATEmix (inhalation-gas)	99,999.00
ATEmix (inhalation-dust/mist)	19.20
ATEmix (inhalation-vapor)	115.10

12. ECOLOGICAL INFORMATION

Ecotoxicity

Specific test data for the substance or mixture is not available. Very toxic to aquatic life. (based on components). Toxic to aquatic life with long lasting effects.

13.99 % of the mixture consists of ingredient(s) of unknown hazards to the aquatic environment

Chemical name	**Algae/aquatic plants**
Phenol	96h EC50 Pseudokirchneriella subcapitata: = 46.42 mg/L
108-95-2	96h EC50 Pseudokirchneriella subcapitata: 0.0188 - 0.1044 mg/L static 72h EC50 Desmodesmus subspicatus: 187 - 279 mg/L static
1-Butanol 71-36-3	72h EC50 Desmodesmus subspicatus: > 500 mg/L 96h EC50 Desmodesmus subspicatus: > 500 mg/L
Chemical name	**Fish**
2-Pentanone 107-87-9	96h LC50 Pimephales promelas: 1190 - 1290 mg/L (flow-through)
Ethyl alcohol 64-17-5	96h LC50 Pimephales promelas: 13400 - 15100 mg/L (flow-through) 96h LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L (static) 96h LC50 Pimephales promelas: > 100 mg/L (static)
Phenol 108-95-2	96h LC50 Pimephales promelas: 11.9 - 50.5 mg/L (flow-through) 96h LC50 Pimephales promelas: 20.5 - 25.6 mg/L (static) 96h LC50 Pimephales promelas: = 32 mg/L 96h LC50 Oncorhynchus mykiss: 5.449 - 6.789 mg/L (flow-through) 96h LC50 Oncorhynchus mykiss: 7.5 - 14 mg/L (static) 96h LC50 Oncorhynchus mykiss: 4.23 - 7.49 mg/L (semi-static) 96h LC50 Lepomis macrochirus: 11.9 - 25.3 mg/L (flow-through) 96h LC50 Lepomis macrochirus: = 11.5 mg/L (semi-static) 96h LC50 Poecilia reticulata: 34.09 - 47.64 mg/L (static) 96h LC50 Poecilia reticulata: = 31 mg/L (semi-static) 96h LC50 Brachydanio rerio: = 27.8 mg/L 96h LC50 Cyprinus carpio: = 0.00175 mg/L (semi-static) 96h LC50 Oryzias latipes: 33.9 - 43.3 mg/L (flow-through) 96h LC50 Oryzias latipes: 23.4 - 36.6 mg/L (static) 96h LC50 Oncorhynchus mykiss: 5.0 - 12.0 mg/L 96h LC50 Lepomis macrochirus: = 13.5 mg/L (static)
1-Butanol 71-36-3	96h LC50 Lepomis macrochirus: 100000 - 500000 µg/L (static) 96h LC50 Pimephales promelas: = 1910000 µg/L (static) 96h LC50 Pimephales promelas: 1730 - 1910 mg/L (static) 96h LC50 Pimephales promelas: = 1740 mg/L (flow-through)
2-Butoxyethanol 111-76-2	96h LC50 Lepomis macrochirus: = 1490 mg/L (static) 96h LC50 Lepomis macrochirus: = 2950 mg/L
Chemical name	**Crustacea**
Ethyl alcohol 64-17-5	48h LC50 Daphnia magna: 9268 - 14221 mg/L 48h EC50 Daphnia magna: = 2 mg/L Static
Phenol 108-95-2	48h EC50 Daphnia magna: 10.2 - 15.5 mg/L 48h EC50 Daphnia magna: 4.24 - 10.7 mg/L Static
1-Butanol 71-36-3	48h EC50 Daphnia magna: 1897 - 2072 mg/L Static 48h EC50 Daphnia magna: = 1983 mg/L

2-Butoxyethanol 111-76-2	48h EC50 Daphnia magna: > 1000 mg/L

Persistence and degradability

No information available.

Bioaccumulation

Chemical name	Partition coefficient
2-Pentanone 107-87-9	0.857
Ethyl alcohol 64-17-5	-0.35
Phenol 108-95-2	1.47
1-Butanol 71-36-3	1
2-Butoxyethanol 111-76-2	0.81

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste Disposal Methods Contain and dispose of waste according to local regulations.

Contaminated Packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

Note:

This information is not intended to convey all specific transportation requirements relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation information can be found in the specific regulations for your mode of transportation. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

DOT

UN number or ID number UN1210
Proper shipping name Printing Ink
Transport hazard class(es) 3
Packing group II

ICAO / IATA / IMDG / IMO UN number or ID number UN1210
UN proper shipping name Printing Ink
Transport hazard class(es) 3
Packing group II

15. REGULATORY INFORMATION

International Inventories

All substances are listed as ACTIVE on the TSCA Inventory. For further information, please contact:. Supplier (manufacturer/importer/downstream user/distributor).

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	CAS No.	Weight-%	SARA 313 - Threshold Values %
Phenol	108-95-2	1 - 5	1.0
1-Butanol	71-36-3	1 - 5	1.0

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act:.

Chemical name	CAS No.	Weight-%
Phenol	108-95-2	1 - 5

US State Regulations

Chemical name	Massachusetts
2-Pentanone	X
107-87-9	
Ethyl alcohol 64-17-5	X
Phenol 108-95-2	X
1-Butanol 71-36-3	X
2-Butoxyethanol 111-76-2	X
Chemical name	**Minnesota Right To Know**
2-Pentanone 107-87-9	X
Ethyl alcohol 64-17-5	X
Phenol 108-95-2	X
1-Butanol 71-36-3	X
2-Butoxyethanol 111-76-2	X
Chemical name	**New Jersey**
2-Pentanone 107-87-9	X
Ethyl alcohol 64-17-5	X
Phenol 108-95-2	X
1-Butanol 71-36-3	X
2-Butoxyethanol 111-76-2	X
Chemical name	**Pennsylvania**
2-Pentanone 107-87-9	X
Ethyl alcohol 64-17-5	X
Phenol 108-95-2	X
1-Butanol 71-36-3	X

2-Butoxyethanol 111-76-2	X

California Proposition 65

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects

Canada

Chemical name	NPRI - National Pollutant Release Inventory
2-Pentanone 107-87-9	Part 4 Substance - Criteria Air Contaminants
Ethyl alcohol 64-17-5	Part 5 Substance - Volatile Organic Compounds with Additional Reporting Requirements Part 4 Substance - Criteria Air Contaminants
Phenol 108-95-2	Part 1, Group A Substance Part 4 Substance - Criteria Air Contaminants
1-Butanol 71-36-3	Part 1, Group A Substance Part 4 Substance - Criteria Air Contaminants
2-Butoxyethanol 111-76-2	Part 1, Group A Substance Part 5 Substance - Volatile Organic Compounds with Additional
	Reporting Requirements Part 4 Substance - Criteria Air Contaminants

16. OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

ACGIH: (American Conference of Governmental Industrial Hygienists)
A1 - Known Human Carcinogen
A2 - Suspected human carcinogen
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to humans
Group 2A - Probably carcinogenic to humans
Group 2B - Possibly carcinogenic to humans
Group 3 - Not classifiable as to its carcinogenicity to humans
NTP: (National Toxicity Program)
Known - Known Carcinogen
Reasonably Anticipated to be a Human Carcinogen
OSHA: (Occupational Safety & Health Administration)
X - Present

Revision date Dec-15-2025

Pursuant to NOM-018-STPS-2015

This information within is considered correct but is not exhaustive and will be used for guidance only, which is based on the current knowledge of the substance or mixture and is applicable to the appropriate safety precautions for the product.

Disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their purposes. In no event shall BestCode be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if BestCode has been advised of the possibility of such damages