



Safety Data Sheet

51-0005-02 Ink, MEK Yellow Soft Pigment

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: 07-21-2023

SECTION 1: Identification

1.1 GHS Product identifier

Product name	Ink, MEK Yellow Soft Pigment
Product number	51-0005-02
Brand	BestCode (REACH Registration number not relevant - mixture)

1.3 Recommended use of the chemical and restrictions on use

Uses advised against - Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household)

1.4 Supplier's details

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

SECTION 2: Hazard identification

General hazard statement

Hazardous ingredients for labelling : Methyl Ethyl Ketone

2.1 Classification of the substance or mixture

- Eye damage/irritation, Cat. 2A
- Specific target organ toxicity (single exposure), Cat. 3
- Flammable liquids, Cat. 2

2.2 GHS label elements, including precautionary statements

Pictograms



Signal word

Danger

Hazard statement(s)

H335

May cause respiratory irritation

H336

May cause drowsiness or dizziness

H225

Highly flammable liquid and vapor

H319

Causes serious eye irritation

Precautionary statement(s)

P261

Avoid breathing dust/fume/gas/mist/vapors/spray.

P264

Wash ... thoroughly after handling.

P271

Use only outdoors or in a well-ventilated area.

P280

Wear eye protection/face protection/protective gloves.

P304+P340

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P312

Call a POISON CENTER/doctor/.../ if you feel unwell.

P337+P313

If eye irritation persists: Get medical advice/attention.

P403+P233

Store in a well-ventilated place. Keep container tightly closed.

P405

Store locked up.

P501

Dispose of contents/container to ...

P210

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P233

Keep container tightly closed.

P240

Ground/bond container and receiving equipment.

P241

Use explosion-proof electrical/ventilating/lighting/.../ equipment.

P242

Use only non-sparking tools.

P243

Take precautionary measures against static discharge.

P303+P361+P353

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P370+P378

In case of fire: Use ... to extinguish.

P403+P235

Store in a well-ventilated place. Keep cool.

2.3 Other hazards which do not result in classification

Results of PBT and vPvB assessments : Does not contain a PBT-/vPvB substance in a concentration of $\geq 0,1\%$.

Endocrine disrupting properties : Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. CYCLOHEXANONE

Concentration	1 - 5 % (weight)
EC no.	203-631-1
CAS no.	108-94-1
Index no.	606-010-00-7
REACH registration no. (EU)	01-2119453616-35-xxxx

- Flammable liquids, Cat. 3
- Acute toxicity, inhalation, Cat. 4

H226	Flammable liquid and vapor
H332	Harmful if inhaled

2. METHYL ETHYL KETONE

Concentration	75 - 90 % (weight)
EC no.	201-159-0
CAS no.	78-93-3
Index no.	606-002-00-3
REACH registration no. (EU)	01-2119457290-43-xxxx

- Flammable liquids, Cat. 2
- Specific target organ toxicity (single exposure), Cat. 3
- Eye damage/irritation, Cat. 2A

H225	Highly flammable liquid and vapor
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
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Do not leave affected person unattended. remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
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In case of skin contact	Wash off with soap and plenty of water.
In case of eye contact	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention/advice. Acute and delayed symptoms and effects: Causes serious eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.
If swallowed	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms/effects, acute and delayed

Narcotic effects

4.3 Indication of immediate medical attention and special treatment needed, if necessary

None

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO₂)

Unsuitable extinguishing media - water jet

5.2 Specific hazards arising from the chemical

In case of insufficient ventilation and/or in use, may form flammable/explosive vapor-air mixture. Solvent vapors are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

Hazardous combustion products:

Nitrogen oxides (NO_x), Carbon monoxide (CO), Carbon dioxide (CO₂)

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

In case of fire and/or explosion do not breath fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use local and general ventilation. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. use only in well ventilated areas. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Ground/bond container and receiving equipment. Use explosion proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Storage class (TRGS 510): Flammable liquids

Only Packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Substance	Butan-2-one
CAS No.	78-93-3
Remarks	Methyl Ethyl Ketone (MEK)

	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m ³	ppm	mg/m ³
Australia	150	445	300	890
Austria	100	295	200	590
Belgium	200	600	300 (1)	900 (1)
Canada - Ontario	200		300	
Canada - Québec	50	150	100 (1)	300 (1)
Denmark	50 (1)	145 (1)	100 (1)(2)	290 (1)(2)
European Union	200	600	300 (1)	900 (1)
Finland	20	60	100 (1)	300 (1)
France	200	600	300 (1)	900 (1)
Germany (AGS)	200 (1)	600 (1)	200 (1)(2)	600 (1)(2)
Germany (DFG)	200 (1)	600 (1)	200 (1)(2)	600 (1)(2)
Hungary		600 (1)		900 (1)(2)
Ireland	200	600	300 (1)	900 (1)

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Israel	200	590		
Italy	200	600	300 (1)	900 (1)
Japan (MHLW)	200			
Japan (JSOH)	200	590		
Latvia	67	200	300 (1)	900 (1)
New Zealand	150	445	300	890
Norway	75	220		
People's Republic of China		300		600 (1)
Poland		450 (1)		900 (1)(2)
Romania	200	600	300 (1)	900 (1)
Singapore	200	590	300	885
South Africa	400 (1)		600 (1)(2)	
South Africa Mining	200 (1)	600 (1)	300 (1)(2)	900 (1)(2)
South Korea	200		300 (1)	
Spain	200	600	300	900
Sweden	50	150	300 (1)	900 (1)
Switzerland	200	590	200	590
The Netherlands	197 (1)	590 (1)	300 (1)(2)	900 (1)(2)
Turkey	200	600	300 (1)	900 (1)
USA - NIOSH	200	590	300 (1)	885 (1)
USA - OSHA	200	590		
United Kingdom	200 (1)	600 (1)	300 (1)(2)	899 (1)(2)

	Remarks
Belgium	(1) 15 minutes average value
Canada - Québec	(1) 15 minutes average value
Denmark	(1) Skin (2) 15 minutes average value
European Union	(1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV)
Finland	(1) 15 minutes average value
France	Bold type: Restrictive statutory limit values Skin (1) 15 minutes average value
Germany (AGS)	(1) Skin (2) 15 minutes average value
Germany (DFG)	(1) Skin (2) 15 minutes average value
Hungary	(1) Skin (2) 15 minutes average value
Ireland	(1) 15 minutes reference period
Italy	(1) 15 minutes average value
Latvia	(1) 15 minutes average value
People's Republic of China	(1) 15 minutes average value
Poland	(1) Skin (2) 15 minutes average value
Romania	(1) 15 minutes average value

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South Africa	(1) Skin (2) 15 minutes average value
South Africa Mining	(1) Skin (2) 15 minutes average value
South Korea	(1) 15 minutes average value
Sweden	(1) 15 minutes average value
The Netherlands	(1) Skin (2) 15 minutes average value
Turkey	(1) 15 minutes average value
USA - NIOSH	(1) 15 minutes average value
United Kingdom	(1) Skin (2) 15 minutes average value

Substance	Cyclohexanone
CAS No.	108-94-1

	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m ³	ppm	mg/m ³
Australia	25	100		
Austria	5	20	20	80
Belgium	10 (1)	40,8 (1)	20 (1)(2)	81,6 (1)(2)
Canada - Ontario	20		50	
Canada - Québec	25 (1)	100 (1)		
Denmark	10 (1)	41 (1)	20 (1)(2)	82 (1)(2)
European Union	10	40,8	20 (1)	81,6 (1)
Finland	10	41	20 (1)	82 (1)
France	10	40,8	20	81,6
Germany (AGS)	20 (1)	80 (1)	20 (1)(2)	80 (1)(2)
Hungary		40,8 (1)		81,6 (1)(2)
Ireland	10	40,8	20 (1)	81,6 (1)
Italy	10 (1)	40,8 (1)	20 (1)(2)	81,6 (1)(2)
Japan (MHLW)	20			
Japan (JSOH)	25	100		
Latvia	10	40,8	20 (1)	81,6 (1)
New Zealand	25	100		
Norway	10 (1)	40 (1)	20 (1)(2)	80 (1)(2)
People's Republic of China		50		
Poland		40 (1)		80 (1)(2)
Romania	10	40,8	20 (1)	81,6 (1)
Singapore	25	100		
South Africa	40 (1)		100 (1)(2)	
South Africa Mining	25	100	50 (1)	200 (1)

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South Korea	25 (1)		50 (1)(2)	
Spain	10 (1)	41 (1)	20 (1)(2)	82 (1)(2)
Sweden	10	41	20 (1)	81 (1)
Switzerland	25	100	50	200
The Netherlands			12,3 (1)(2)	50 (1)(2)
Turkey	10	40,8	20 (1)	81,6 (1)
USA - NIOSH	25 (1)	100 (1)		
USA - OSHA	50	200		
United Kingdom	10 (1)	41 (1)	20 (1)(2)	82 (1)(2)

	Remarks
Belgium	(1) "D" absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air. (2) 15 minutes average value
Canada - Québec	(1) Skin
Denmark	(1) Skin (2) 15 minutes average value
European Union	(1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV)
Finland	(1) 15 minutes average value
France	Bold type: Restrictive statutory limit values
Germany (AGS)	(1) Skin (2) 15 minutes average value
Hungary	(1) Skin (2) 15 minutes average value
Ireland	(1) 15 minutes reference period
Italy	(1) Skin (2) 15 minutes average value
Latvia	(1) 15 minutes average value
Norway	(1) Skin (2) 15 minutes average value
Poland	(1) Skin (2) 15 minutes average value
Romania	(1) 15 minutes average value
South Africa	(1) Skin (2) 15 minutes average value
South Africa Mining	(1) 15 minutes average value
South Korea	(1) Skin (2) 15 minutes average value
Spain	(1) Skin (2) 15 minutes average value
Sweden	(1) 15 minutes average value
The Netherlands	(1) Skin (2) 15 minutes average value
Turkey	(1) 15 minutes average value
USA - NIOSH	(1) Skin
United Kingdom	(1) Skin (2) 15 minutes average value

8.2 Appropriate engineering controls

General ventilation

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear eye/face protection

Body protection

Impervious clothing, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

SECTION 9: Physical and chemical properties

Appearance (physical state, color, etc.)

Odor

Pungent

Odor threshold

No data available.

pH

No data available.

Melting point/freezing point

Not determined

Initial boiling point and boiling range

79 °C

Flash point

-8 °C 17.6 °F

Evaporation rate

No data available.

Flammability (solid, gas)

No data available.

Upper/lower flammability or explosive limits

No data available.

Vapor pressure

7 hPa at 30°C

Vapor density

No data available.

Relative density

7.26 lb/gal

Solubility(ies)

No data available.

Partition coefficient: n-octanol/water

No data available.

Auto-ignition temperature

420 °C

Decomposition temperature

Viscosity

No data available.

Additional properties

Physical state

Liquid

Color

Yellow

Explosive properties

None

Oxidizing properties

None

Supplemental information regarding physical hazard classes

VOC (Lb/gal) 5.99

Temperature class (USA, acc. to NEC 500) T2 (maximum permissible surface temperature on the equipment: 300°C)

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "conditions to avoid" and "incompatible materials". The mixture contains reactive substance(s). Risk of ignition.

If heated: Risk of ignition

10.2 Chemical stability

See below "conditions to avoid"

10.3 Possibility of hazardous reactions

None under normal use conditions.

10.4 Conditions to avoid

Avoid storing in direct sunlight and avoid extremes of temperature.

Heat, flames and sparks.

10.5 Incompatible materials

Oxidizers

10.6 Hazardous decomposition products

Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Test data not available for complete mixture

Shall not be classified as acutely toxic.

GHS of the United Nations, annex 4: May be harmful if swallowed.

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity (STOT) - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity (STOT) - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Additional information

Repeated exposure may cause skin dryness or cracking.

SECTION 12: Ecological information

Toxicity

Shall not be classified as hazardous to the aquatic environment.

Persistence and degradability

No data available on product

Bioaccumulative potential

No data available on product

Mobility in soil

No data available

Results of PBT and vPvB assessment

Results of PBT and vPvB assessments : Does not contain a PBT-/vPvB substance in a concentration of $\geq 0,1\%$.

Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$

Other adverse effects

No data available

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Solvent reclamation/regeneration.

Packaging disposal

Dispose of as unused product.

Waste treatment

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages may be recycled. Handle contaminated packages in the same way as the substance itself.

Sewage disposal

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Other disposal recommendations

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

49 CFR US DOT

UN Number: 1210

Class: 3

Packing Group: II

Proper Shipping Name: Printing ink,[flammable or] Printing ink related material [(including printing ink thinning or reducing compound),flammable]

Marine pollutant: -

Reportable quantity (RQ) - 6,196 lbs (2,813 kg) (Methyl Ethyl Ketone)

IMDG

UN Number: 1210

Class: 3

Packing Group: II

EMS Number: F-E,S-D

Proper Shipping Name: Printing ink,[flammable or] Printing ink related material [(including printing ink thinning or reducing compound),flammable]

IATA

UN Number: 1210

Class: 3

Packing Group: II

Proper Shipping Name: Printing ink,[flammable or] Printing ink related material [(including printing ink thinning or reducing compound),flammable]

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS # 78-93-3 Methyl Ethyl Ketone S.302 (EHS): No; S.304 RQ: Yes NA; S.313 (TRI): No.

CAS # 108-94-1 Cyclohexanone S.302 (EHS): No; S.304 RQ: No; S313 (TRI): No.

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

Warning this product could exposure you to chemicals listed by the state of California under the safe Drinking Water and Toxic Enforcement Act of 1989 (Proposition 65) as being known to cause cancer, birth defects, and/or reproductive harm. See www.P65warnings.a.gov for more details.

Other US EPA or State Lists

CAS # 108-94-1 Methyl Ethyl Ketone CAA HAP, ODC: No; CWA NPDES: No; TSCA: Yes - inventory; CA Prop.65: No.

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CAS # 108-94-1 Cyclohexanone CAA HAP, ODC: No; CWA NPDES: No; TSCA: Yes - inventory; CA Prop.65: No.

International Regulatory Lists

All chemicals in this product are compliant, except listed and/or active in regards to the following regulations:

AU - AIIIC; CA - DSL; CA - NDSL; CN - IECSC; EU - ECSI; EU - REACH Reg.; JP - CSCL-ENCS; JP - ISHA-ENCS; KR - KECI; MX - INSQ; NZ - NZIoC; PH - PICCS; TR - CICR; TW - TCSI; US - TSCA

Restrictions according to REACH, Annex XVII

CAS # 78-93-3 Methyl Ethyl Ketone
Name acc. to inventory - flammable/pyrophoric
Restriction - R40: No 40

CAS # 108-94-1 Cyclohexanone
Name acc. to inventory - flammable/pyrophoric
Restriction - R40: No 40

51-0005-02 - This product meets the criteria for classification in accordance with regulation No 1272/2008/EC

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

CAS # 78-93-3 Methyl Ethyl Ketone
Statutory code : 4, RQ pounds (Kg) 5000(2270)

CAS # 108-94-1 Cyclohexanone
Statutory code : 4, RQ pounds (Kg) 5000(2270)

15.2 Chemical Safety Assessment

Chemical safety assesments for substances in this mixture were not carried out.

SECTION 16: Other information

Revision Date : 07/21/2023

16.1 Further information/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.