

Safety Data Sheet 51-0027-01 Ink MEK Flex Black

Version 1.0 • Date of issue: 2024-02-14

SECTION 1: Identification

1.1 GHS Product identifier

Product name	51-0027-01 Ink MEK Flex Black
Product number	51-0027-01
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
Acetic acid, ethyl ester
Butyl methacrylate
Methyl methacrylate
Cyclohexanone
Chromium

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.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
HU32	May form combustible dust concentrations in air

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.
P302+P352	IF ON SKIN: Wash with plenty of water/...

2.3 **Adverse Human Health** Hazards not otherwise classified (HNOC) or not covered by GHS. Hazards not otherwise **Effects and Symptoms:** classified (HNOC) or not covered by GHS -none.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. METHYL ETHYL KETONE

Concentration	70.09 - 82.9 % (weight)
EC no.	201-159-0
CAS no.	78-93-3

Safety Data Sheet

51-0027-01 Ink MEK Flex Black

Version 1.0 • Date of issue: 2024-02-14

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.

2. Ethyl acetate

Concentration 1.25 - 3.75 % (weight)
EC no. 205-500-4
CAS no. 141-78-6
Index no. 607-022-00-5
REACH registration no. (EU) 01-2119475103-46

- 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.

3. BUTYL METHACRYLATE

Concentration 0.05 - 0.15 % (weight)
EC no. 202-615-1
CAS no. 97-88-1
Index no. 607-033-00-5
REACH registration no. (EU) 01-2119486394-28

- Flammable liquids, Cat. 3
- Specific target organ toxicity (single exposure), Cat. 3
- Skin corrosion/irritation, Cat. 2
- Eye damage/irritation, Cat. 2A
- Sensitization, skin, Cat. 1

H226 Flammable liquid and vapor
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

4. METHYL METHACRYLATE

Concentration 0.05 - 0.15 % (weight)
EC no. 201-297-1
CAS no. 80-62-6
Index no. 607-035-00-6
REACH registration no. (EU) 01-2119452498-28

- Flammable liquids, Cat. 2

Safety Data Sheet

51-0027-01 Ink MEK Flex Black

Version 1.0 • Date of issue: 2024-02-14

- Specific target organ toxicity (single exposure), Cat. 3
- Skin corrosion/irritation, Cat. 2
- Sensitization, skin, Cat. 1

H225	Highly flammable liquid and vapor
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.

5. Cellulose ester

Concentration	0.1 - 1 % (weight)
CAS no.	9004-36-8

6. Octamethylcyclotetrasiloxane

Concentration	0.01 - 0.1 % (weight)
EC no.	209-136-7
CAS no.	556-67-2
Index no.	014-018-00-1
REACH registration no. (EU)	01-2119529238-36

- Flammable liquids, Cat. 3
- Toxic to reproduction, Cat. 2
- Hazardous to the aquatic environment, long-term (chronic), Cat. 1

H361f	
H410	Very toxic to aquatic life with long lasting effects
SCLs/M-factors/ATEs	M=10

7. CYCLOHEXANONE

Concentration	0.099 - 1 % (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.

8. Chromate(1-), [1-[2-[2-(hydroxy-kappaO)-4-nitrophenyl]diazanyl-kappaN1]-2-naphthalenolato(2-)-kappaO][1-[2-[2-(hydroxy-kappaO)-5-nitrophenyl]diazanyl-kappaN1]-2-naphthalenolato(2-)-kappaO]-, hydrogen, compd with 3-[(2-ethylhexyl)oxy]-1-propanamine (1:1:1)

Concentration	0-6 % (weight)
EC no.	276-857-1
CAS no.	72812-34-1
REACH registration no. (EU)	01-2120115147-66

9. Chromate(1-), bis[1-[2-[2-(hydroxy-kappaO)-4-nitrophenyl]diazenyl-kappaN1]-2-naphthalenolato(2)-kappaO]-, hydrogen, compd with 3-[(2-ethylhexyl)oxy]-1-propanamine (1:1:1)

Concentration 0-4.5 % (weight)
EC no. 276-859-2
CAS no. 72812-36-3

10. Chromate(1-), bis[1-[2-[2-(hydroxy-kappaO)-5-nitrophenyl]diazenyl-kappaN1]-2-naphthalenolato(2)-kappaO]-, hydrogen, compd with 3-[(2-ethylhexyl)oxy]-1-propanamine (1:1:1)

Concentration 0-4.5 % (weight)
EC no. 276-858-7
CAS no. 72812-35-2

11. CHROMIUM

Concentration 0-0.6 % (weight)
EC no. 231-157-5
CAS no. 7440-47-3
Index no. 024-007-00-3
REACH registration no. (EU) 01-2119485652-31

- Carcinogenicity, Cat. 1A
- Acute toxicity, oral, Cat. 4
- Sensitization, skin, Cat. 1
- Hazardous to the aquatic environment, short-term (acute), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic), Cat. 1

H302 Harmful if swallowed
H317 May cause an allergic skin reaction
H350 May cause cancer [route]
H400 Very toxic to aquatic life
H410 Very toxic to aquatic life with long lasting effects

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. Do not leave the affected person unattended. remove victims out of the danger area. Keep the 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.
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 breathe 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 vapor's, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapor's accumulating to form explosive concentrations. Vapors 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. used only in well-ventilated areas. Due to danger of explosion, prevent leakage of vapors 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 Packaging 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)
Israel	200	590		
Italy	200	600	300 (1)	900 (1)

Safety Data Sheet

51-0027-01 Ink MEK Flex Black

Version 1.0 • Date of issue: 2024-02-14

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
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

Safety Data Sheet

51-0027-01 Ink MEK Flex Black

Version 1.0 • Date of issue: 2024-02-14

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	Ethyl acetate
CAS No.	141-78-6

	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m ³	ppm	mg/m ³
Australia	200	720	400	1440
Austria	200	734	400 (1)	1468 (1)
Belgium	200	734	400 (1)	1468 (1)
Canada - Ontario	400			
Canada - Québec	400	1440		
Denmark	150	540	300	1080
European Union	200	734	400 (1)	1468 (1)
Finland	200	730	400 (1)	1470 (1)
France	200	734	400 (1)	1468 (1)
Germany (AGS)	200	730	400 (1)	1460 (1)
Germany (DFG)	200	750	400 (1)	1500 (1)
Hungary		734		1468 (1)
Ireland	200	734	400 (1)	1468 (1)
Italy	200	734	400 (1)	1468 (1)
Japan (MHLW)	200			
Japan (JSOH)	200	720		
Latvia	54	200	400 (1)	1468 (1)
New Zealand	200	720		
Norway	200	734	400 (1)	1468 (1)
People's Republic of China		200		300 (1)
Poland		734		1468 (1)
Romania	200	734	400 (1)	1468 (1)
Singapore	400	1440		
South Africa	800			
South Africa Mining	200	700		
South Korea	400			
Spain	200	734	400 (1)	1460 (1)
Sweden	150	550	300 (1)	1100 (1)

Safety Data Sheet

51-0027-01 Ink MEK Flex Black

Version 1.0 • Date of issue: 2024-02-14

Switzerland	200	730	400 (1)	1470 (1)
The Netherlands	200	734	400 (1)	1468 (1)
USA - NIOSH	400	1400		
USA - OSHA	400	1400		
United Kingdom	200	734	400 (1)	1468 (1)

	Remarks
Austria	(1) 15 minutes average value
Belgium	(1) 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 (1) 15 minutes average value
Germany (AGS)	(1) 15 minutes average value
Germany (DFG)	(1) 15 minutes average value
Hungary	(1) 15 minutes average value
Ireland	(1) 15 minutes average value
Italy	(1) 15 minutes average value
Latvia	(1) 15 minutes average value
Norway	(1) 15 minutes average value
People's Republic of China	(1) 15 minutes average value
Poland	(1) 15 minutes average value
Romania	(1) 15 minutes average value
Spain	(1) 15 minutes average value
Sweden	(1) 15 minutes average value
Switzerland	(1) 15 minutes average value
The Netherlands	(1) 15 minutes average value
United Kingdom	(1) 15 minutes average value

Substance	n-Butyl methacrylate
CAS No.	97-88-1

	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m ³	ppm	mg/m ³
Denmark	25	145	50	290
Latvia		30		
Norway	10	59		
Poland		100		300 (1)
Romania	25	150	43 (1)	250 (1)
Sweden	50	300	75 (1)	450 (1)

	Remarks
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Safety Data Sheet

51-0027-01 Ink MEK Flex Black

Version 1.0 • Date of issue: 2024-02-14

Poland	(1) 15 minutes average value
Romania	(1) 15 minutes average value
Sweden	(1) 15 minutes average value

Substance	Methyl methacrylate
CAS No.	80-62-6

	Limit value - Eight hours		Limit value - Short term	
	ppm	mg/m ³	ppm	mg/m ³
Australia	50	208	100	416
Austria	50	210	100	420
Belgium	50	208	100 (1)	416 (1)
Canada - Ontario	50		100	
Canada - Québec	50		100 (1)	
Denmark	25 (1)	102 (1)	50 (1)(2)	204 (1)(2)
European Union	50		100 (1)	
Finland	10	42	50 (1)	210 (1)
France	50	205	100 (1)	410 (1)
Germany (AGS)	50	210	100 (1)	420 (1)
Germany (DFG)	50	210	100 (1)	420 (1)
Hungary		208 (1)		415 (1)(2)
Ireland	50		100 (1)	
Israel	50	205		
Italy	50		100 (1)	
Japan (JSOH)		8,3		
Latvia		10		
New Zealand	50	208	100	416
Norway	25	100	100 (1)	400 (1)
People's Republic of China		100		
Poland		100		300 (1)
Romania	50	205	100 (1)	410 (1)
Singapore	100	410		
South Africa	100		200 (1)	
South Africa Mining	50	205	100 (1)	410 (1)
South Korea	50		100 (1)	
Spain	50	100	100 (1)	416 (1)
Sweden	50	200	100 (1)	400 (1)
Switzerland	50	210	100	420
The Netherlands	50	205	100 (1)	410 (1)
Turkey	50		100 (1)	
USA - NIOSH	100	410		
USA - OSHA	100	410		

Safety Data Sheet

51-0027-01 Ink MEK Flex Black

Version 1.0 • Date of issue: 2024-02-14

United Kingdom	50	208	100 (1)	416 (1)
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	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 (1) 15 minutes average value
Germany (AGS)	(1) 15 minutes average value
Germany (DFG)	(1) 15 minutes average value
Hungary	(1) Skin (2) 15 minutes average value
Ireland	(1) 15 minutes reference period
Italy	(1) 15 minutes average value
Norway	(1) 15 minutes average value
Poland	(1) 15 minutes average value
Romania	(1) 15 minutes average value
South Africa	(1) 15 minutes average value
South Africa Mining	(1) 15 minutes average value
South Korea	(1) 15 minutes average value
Spain	(1) 15 minutes average value
Sweden	(1) 15 minutes average value
The Netherlands	(1) 15 minutes average value
Turkey	(1) 15 minutes average value
United Kingdom	(1) 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)

Safety Data Sheet

51-0027-01 Ink MEK Flex Black

Version 1.0 • Date of issue: 2024-02-14

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)
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) Additional indication "D" means that the absorption of the agent through the skin, mucous membranes. (2) or eyes is an important part of the total exposure. It can be the result of both direct contact and its (3) 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

Safety Data Sheet

51-0027-01 Ink MEK Flex Black

Version 1.0 • Date of issue: 2024-02-14

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.)	Liquid, Black
Odor	Solvent
Odor threshold	No data available.
pH	No data available.
Melting point/freezing point	-86.99 °C - -35.1 °C (-31.22F)
Initial boiling point and boiling range	76.5 °C - 68.8 °C (155.78 F)
Flash point	>-2.99 °C
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Upper/lower flammability or explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	> Air.
Relative density	7.22 lb/gal
Solubility(ies)	Miscible
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	420 °C

Safety Data Sheet

51-0027-01 Ink MEK Flex Black

Version 1.0 • Date of issue: 2024-02-14

Decomposition temperature

Viscosity

No data available.

Additional properties

Physical state

Liquid

Color

Black

Explosive properties

None

Oxidizing properties

None

Supplemental information regarding physical hazard classes

Percent Volatile: >70.0%

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

Oxidizing agents, strong reducing agents, strong oxidizing agents.

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.

Toxicological Effects: Germ cell mutagenicity. No data available.

Reproductive toxicity. Aspiration hazard: Acute toxicity: no data available. Inhalation: Dermal.

CAS# 78-93-3:

Acute toxicity, LD50, Intraperitoneal, Mouse, 616.0 MG/KG. Result:

Lungs, Thorax, or Respiration: Sputum.

Biochemical: Metabolism (Intermediary): Other proteins. Biochemical:Metabolism (intermediary): Effect on inflammation or mediation of inflammation.

- Shell Chemical Company. Unpublished Report., Vol/p/yr: -,6, 1961

Acute toxicity, LD50, Skin, Species: Rabbit, 6480. MG/KG. Result:

Lungs, Thorax, or Respiration:Other changes.

Biochemical:Metabolism (intermediary): Effect on inflammation or mediation of inflammation.

- Shell Chemical Company., Vol/p/yr: MSDS-5390-,

Safety Data Sheet

51-0027-01 Ink MEK Flex Black

Version 1.0 • Date of issue: 2024-02-14

Acute toxicity, LC50, Inhalation, Mouse, 32.00 MG/M3. Result:
Brain and Coverings: Other degenerative changes.
Biochemical:Metabolism (intermediary): Effect on inflammation or mediation of inflammation.

Acute toxicity, LD50, Intraperitoneal, Species: Guinea pig, 2.000 GM/KG. Result:
Immunological Including Allergic: Increase in humoral immune response.

Skin corrosion/irritation.
Result: Tumorigenic:Tumors at site or application. No skin irritation . (OECD Test Guideline 404) Serious eye damage/eye irritation Eyes -Rabbit)
Irritating to eyes . Result: Mild skin irritation (OECD Test Guideline 404) Serious eye damage/eye irritation Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3. No data available. Serious eye damage/eye irritation no data available.

Sensitization: No data available

Chronic Toxicological Effects: Specific target organ toxicity - single exposure: May cause drowsiness or dizziness. Specific target organ toxicity -repeated exposure: no data available. No data available.

Carcinogenicity/Other Information: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

Carcinogenicity: NTP? No

IARC Monographs? No OSHA Regulated? No

SECTION 12: Ecological information

Toxicity

No data available.

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

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

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 #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
78-93-3	Methyl ethyl ketone	No	Yes NA	No
141-78-6	Acetic acid, ethyl ester	No	Yes NA	No
NA	Non Hazardous	No	No	No
97-88-1	Butyl methacrylate	No	No	No
80-62-6	Methyl methacrylate	No	Yes NA	Yes
9004-36-8	Cellulose ester	No	No	No
556-67-2	Cyclotetrasiloxane, Octamethyl-	No	No	No
108-94-1	Cyclohexanone	No	Yes NA	No
72812-34-1	Chromate(1-),1-(2-hydroxy-4-nitrophenyl)azo-2-naphthalenolato(2-)-1-(2-hydroxy-5-nitrophenyl)azo-2-n	No	No	Yes-Cat. N090
72812-36-3	Chromate(1-),bis1-(2-hydroxy-4-nitrophenyl)azo-2-naphthalenolato(2-)-, hydrogen, compd. with3-(2-et	No	No	Yes-Cat. N090
72812-35-2	Chromate(1-),bis1-(2-hydroxy-5-nitrophenyl)azo-2-naphthalenolato(2-)-, hydrogen, compd. with3-(2-et	No	No	Yes-Cat. N090
7440-47-3	Chromium	No	Yes NA	Yes-Cat. N090

CAS#	Hazardous Components (Chemical Name)	Canadian NPRI	Canadian Toxic	Canadian DSL
78-93-3	Methyl ethyl ketone	Yes: Part 5	No	Yes
141-78-6	Acetic acid, ethyl ester	Yes: Part 5	No	Yes
NA	Non Hazardous	No	No	No
97-88-1	Butyl methacrylate	No	No	Yes
80-62-6	Methyl methacrylate	Yes: Part 1A		Yes
9004-36-8	Cellulose ester	No	No	Yes
556-67-2	Cyclotetrasiloxane, Octamethyl-	No	Yes - 102.	Yes
108-94-1	Cyclohexanone	No	No	Yes
72812-34-1	Chromate(1-),1-(2-hydroxy-4-nitrophenyl)azo-2-naphthalenolato(2-)-1-(2-hydroxy-5-nitrophenyl)azo-2-n	Yes - Cat.		

Safety Data Sheet

51-0027-01 Ink MEK Flex Black

Version 1.0 • Date of issue: 2024-02-14

72812-36-3	Chromate(1-),bis1-(2-hydroxy-4-nitrophenyl)azo-2-naphthalenolato(2-)-, hydrogen, compd. with3-(2-et	Yes - Cat.	Yes
72812-35-2	Chromate(1-),bis1-(2-hydroxy-5-nitrophenyl)azo-2-naphthalenolato(2-)-, hydrogen, compd. with3-(2-et	Yes - Cat.	
7440-47-3	Chromium	Yes - Cat.	Yes

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
78-93-3	Methyl ethyl ketone	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
141-78-6	Acetic acid, ethyl ester	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
NA	Non Hazardous	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No
97-88-1	Butyl methacrylate	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory, 8A PAIR, 8D TERM; CA PROP.65: No
80-62-6	Methyl methacrylate	CAA HAP,ODC: HAP: VHAP; CWA NPDES: Yes; TSCA: Yes - Inventory; CA PROP.65: No
9004-36-8	Cellulose ester	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
556-67-2	Cyclotetrasiloxane, Octamethyl-	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory, 8A PAIR; CA PROP.65: No
108-94-1	Cyclohexanone	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
72812-34-1	Chromate(1-),1-(2-hydroxy-4-nitrophenyl)azo-2-naphthalenolato(2-)-1-(2-hydroxy-5-nitrophenyl)azo-2-n	CAA HAP,ODC: Yes - Cat.; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
72812-36-3	Chromate(1-),bis1-(2-hydroxy-4-nitrophenyl)azo-2-naphthalenolato(2-)-, hydrogen, compd. with3-(2-et	CAA HAP,ODC: Yes - Cat.; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No

Safety Data Sheet

51-0027-01 Ink MEK Flex Black

Version 1.0 • Date of issue: 2024-02-14

72812-35-2	Chromate(1-),bis[1-(2-hydroxy-5-nitrophenyl)azo-2-naphthalenolato(2-)-], hydrogen, compd. with 3-(2-et	CAA HAP,ODC: Yes - Cat.; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
7440-47-3	Chromium	CAA HAP,ODC: Yes - Cat.; CWA NPDES: Yes; TSCA: Yes - Inventory; CA PROP.65: No
CAS #	Hazardous Components (Chemical Name)	International Regulatory Lists
78-93-3	Methyl ethyl ketone	Mexico INSQ: Yes - 1193; Australia ICS: Yes; New Zealand IOC: Yes; China IECSC: Yes; Japan ENCS: Yes - 2-542; Japan ISHL: No; Korea ECL: Yes - KE-24094; Philippines ICCS: Yes; Taiwan TCSCA: Yes; Singapore HSL: No; Israel HSL: No; Germany WHCS: Yes - 150; WGK 1; Switzerland Giftliste 1: Yes - G-2429; Switzerland INNS: No; REACH: Yes - 01-2119457290-43: Full, (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No
141-78-6	Acetic acid, ethyl ester	Mexico INSQ: Yes - 1173; Australia ICS: Yes; New Zealand IOC: Yes; China IECSC: Yes; Japan ENCS: Yes - 2-726; Japan ISHL: No; Korea ECL: Yes - KE-00047; Philippines ICCS: Yes; Taiwan TCSCA: Yes; Singapore HSL: No; Israel HSL: No; Germany WHCS: Yes - 95; WGK 1; Switzerland Giftliste 1: Yes - G-1157; Switzerland INNS: No; REACH: Yes - 01-2119475103-46: Full, (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No
NA	Non Hazardous	Mexico INSQ: No; Australia ICS: No; New Zealand IOC: No; China IECSC: No; Japan ENCS: No; Japan ISHL: No; Korea ECL: No; Philippines ICCS: No; Taiwan TCSCA: No; Singapore HSL: No; Israel HSL: No; Germany WHCS: No; Switzerland Giftliste 1: No; Switzerland INNS: No; REACH: No; Kyoto GHG: No; Rotterdam: No; Stockholm: No
97-88-1	Butyl methacrylate	Mexico INSQ: Yes; Australia ICS: Yes; New Zealand IOC: Yes; China IECSC: Yes; Japan ENCS: Yes - 6-2010; Japan ISHL: No; Korea ECL: Yes - KE-24922; Philippines ICCS: Yes; Taiwan TCSCA: Yes; Singapore HSL: No; Israel HSL: No; Germany WHCS: Yes - 1254; WGK 1; Switzerland Giftliste 1: Yes - G-3277; Switzerland INNS: No; REACH: Yes - 01-2119486394-28: Full, (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No
80-62-6	Methyl methacrylate	Mexico INSQ: Yes; Australia ICS: Yes; New Zealand IOC: Yes; China IECSC: Yes; Japan ENCS: Yes - 2-1036; Japan ISHL: No; Korea ECL: Yes - KE-25050; Philippines ICCS: Yes; Taiwan TCSCA: Yes; Singapore HSL: No; Israel HSL: Yes - Cat.; Germany WHCS: Yes - 154; WGK 1; Switzerland Giftliste 1: Yes - G-2514; Switzerland INNS: No; REACH: Yes - 01-2119452498-28: Full, (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No
9004-36-8	Cellulose ester	Mexico INSQ: Yes; Australia ICS: Yes; New Zealand IOC: Yes; China IECSC: Yes; Japan ENCS: Yes - 8-168; Japan ISHL: No; Korea ECL: Yes - KE-05342; Philippines ICCS: Yes; Taiwan TCSCA: Yes; Singapore HSL: No; Israel HSL: No; Germany WHCS: Yes - 7208; WGK 0/nwg; Switzerland Giftliste 1: Yes - G-8394; Switzerland INNS: No; REACH: Yes - (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No
556-67-2	Cyclotetrasiloxane, Octamethyl-	Mexico INSQ: Yes; Australia ICS: Yes; New Zealand IOC:

Safety Data Sheet
51-0027-01 Ink MEK Flex Black

Version 1.0 • Date of issue: 2024-02-14

		Y	IECSC: Yes; Japan ENCS: Yes - 7-475; Japan ISHL: No; Korea Taiwan TCSCA: Yes; Singapore HSL: No; Israel HSL: No; Germany WHCS: Yes - 542: WGK 1; Switzerland Giftliste 1: No; Switzerland INNS: No; REACH: Yes - 01-2119529238-36: Full, (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No
108-94-1	Cyclohexanone		Mexico INSQ: Yes - 1915; Australia ICS: Yes; New Zealand IOC: Yes; China IECSC: Yes; Japan ENCS: Yes - 3-2376; Japan ISHL: No; Korea ECL: Yes - KE-09188; Philippines ICCS: Yes; Taiwan TCSCA: Yes; Singapore HSL: No; Israel HSL: No; Germany WHCS: Yes - 64: WGK 1; Switzerland Giftliste 1: Yes - G-1458; Switzerland INNS: No; REACH: Yes - 01-2119453616-35: Full, (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No
72812-34-1	Chromate(1-),1-(2-hydroxy-4-nitrophenyl)azo-2-naphthalenolato(2-)-1-(2-hydroxy-5-nitrophenyl)azo-2-n		Mexico INSQ: No; Australia ICS: Yes; New Zealand IOC: Yes; China IECSC: Yes; Japan ENCS: No; Japan ISHL: No; Korea ECL: No; Philippines ICCS: Yes; Taiwan TCSCA: Yes; Singapore HSL: Yes - Cat.; Israel HSL: Yes - Cat.; Germany WHCS: Yes - 9789: WGK 1; Switzerland Giftliste 1: No; Switzerland INNS: No; REACH: Yes - 01-2120115147-66: Full, (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No
72812-36-3	Chromate(1-),bis1-(2-hydroxy-4-nitrophenyl)azo-2-naphthalenolato(2-)-, hydrogen, compd. with3-(2-et		Mexico INSQ: No; Australia ICS: Yes; New Zealand IOC: Yes; China IECSC: Yes; Japan ENCS: No; Japan ISHL: No; Korea ECL: No; Philippines ICCS: Yes; Taiwan TCSCA: Yes; Singapore HSL: Yes - Cat.; Israel HSL: Yes - Cat.; Germany WHCS: No; Switzerland Giftliste 1: No; Switzerland INNS: No; REACH: Yes - (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No
72812-35-2	Chromate(1-),bis1-(2-hydroxy-5-nitrophenyl)azo-2-naphthalenolato(2-)-, hydrogen, compd. with3-(2-et		Mexico INSQ: No; Australia ICS: No; New Zealand IOC: Yes; China IECSC: Yes; Japan ENCS: No; Japan ISHL: No; Korea ECL: No; Philippines ICCS: Yes; Taiwan TCSCA: Yes; Singapore HSL: Yes - Cat.; Israel HSL: Yes - Cat.; Germany WHCS: No; Switzerland Giftliste 1: No; Switzerland INNS: No; REACH: Yes - (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No
7440-47-3	Chromium		Mexico INSQ: Yes; Australia ICS: Yes; New Zealand IOC: Yes; China IECSC: Yes; Japan ENCS: No; Japan ISHL: No; Korea ECL: Yes - KE-05970; Philippines ICCS: Yes; Taiwan TCSCA: Yes; Singapore HSL: Yes - Cat.; Israel HSL: Yes - 1-3; Germany WHCS: Yes - 1443: WGK 0/nwg; Switzerland Giftliste 1: Yes - G-6529; Switzerland INNS: No; REACH: Yes - 01-2119485652-31: Full, (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No ECL: Yes - KE-26606; Philippines ICCS: Yes;

SECTION 16: Other information

Revision Date : 02/14/2024

16.1 Further information/disclaimer

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