1. PRODUCT IDENTIFICATION

PRODUCT NAME: 3110

PRODUCT COLOR: Red

RECOMMENDED USE: Coding and Marking

Manufacturer/Supplier:
American Coding & Marking Ink Co., Inc. 1-908-756-0373
1220 North Avenue
Plainfield, NJ 07062-1796
USA

Emergency Telephone Number:

TRANSPORTATION: CHEMTREC : 1-800-424-9300 (North America)
1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

Emergency Overview:

GHS Classification:

Flammable liquids	Category 2
Acute toxicity - Inhalation	Category 4
Serious eye damage/eye irritation	Category 2A
Carcinogenicity	Category 1B
Reproductive toxicity	Category 1A
Specific target organ toxicity – single exposure	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

GHS label elements, including precautionary statements

Pictogram 

Signal Word **Danger**

Hazard Statements

H225	Highly flammable liquid and vapor
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H350	May cause cancer
H360	May damage fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure

H410	Very toxic to aquatic life with long lasting effects

Precautionary Statements

P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P210	Keep away from heat/sparks/open flames/hot surfaces
P233	Keep container tightly closed
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P260	Do not breathe dust/fume/gas/mist/vapors/spray
P264	Wash skin thoroughly after handling
P271	Use only outdoors or in a well-ventilated area
P273	Avoid release to the environment
P280	Wear protective gloves/eye protection/face protection
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338	IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313	IF exposed or concerned: Get medical advice/attention
P312	Call a POISON CENTER or doctor/physician if you feel unwell
P337+P313	If eye irritation persists: Get medical advice/attention
P370+P378	In case of fire: Use Water spray, CO2, dry chemical, or alcohol resistant foam to extinguish
P391	Collect Spillage
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
2-Methoxy-1-methylethyl acetate	108-65-6	40-60
4-Hydroxy-4-methyl-2-pentanone	123-42-2	5-15
Methyl Isobutyl Ketone	108-10-1	5-15
Lead Chromate Pigment	7758-97-6	5-15
Isophorone	78-59-1	2-10

4. FIRST AID MEASURES

First Aid Measures

Ingestion: If swallowed, do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Eyes: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin: Wash off with soap and plenty of water. Consult a physician.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Most important symptoms and effects

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

5. FIREFIGHTING MEASURES

Suitable extinguishing media:

Water fog, Multipurpose foam, Dry chemical, CO_2

Specific hazards in case of fire:

Fight as volatile liquid fire
Vapors are dense and may travel to remote ignition source and flash back

Hazardous combustion products:

Carbon oxides, nitrogen oxides, organic combustion products which may be toxic and/or irritating

Protective equipment and precautions for fire fighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:

Wear chemical goggles, gloves, boots and protective clothing. Wear respirator if necessary. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition and heat.

Environmental precaution:

Prevent additional discharge of material. Prevent material from entering sewers or water courses.

Methods and materials for containment and cleaning up:

Absorb small spills with sand, filter-aid, vermiculite or other inert absorbent material, them place in a chemical waste container. For large spills, contain with sand or earth dikes. Dispose of waste in accordance with applicable government regulations.

7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid contact with eyes. Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink of smoke when using this product. Wear protective gloves/protective clothing and eye/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Unscrew all caps slowly. Do not unscrew entirely until all pressure has been completely released. Keep away from heat/sparks/open flames/hot surfaces. Emptied containers may retain residues. Precautions apply to emptied containers.

Conditions for safe storage, including incompatibilities:

Keep container tightly closed and store in a cool, dry and well-ventilated place. Keep storage temperature between 4-32 °C (40-90 °F). Incompatible with strong oxidizing agents, strong acids, strong bases, alkali metals and halogens.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Guidelines:

Chemical Name and CAS#	ACGIH TLV	OSHA PEL	NIOSH IDLH
2-Methxy-1-methylethyl acetate 108-65-6	Not Established	Not Established	Not Established
4-Hydroxy-4-methyl-2-pentanone 123-42-2	TWA: 50 ppm	TWA: 50 ppm TWA: 240 mg/m^3	IDLH: 1800 ppm TWA: 50 ppm TWA: 240 mg/m^3
Methyl Isobutyl Ketone 108-10-1	STEL: 75 ppm TWA: 25 ppm	TWA: 100 ppm TWA: 410 mg/m^3	IDLH: 500 ppm TWA: 50 ppm TWA: 205 mg/m^3 STEL:75 ppm STEL: 300 mg/m^3
Lead chromate pigment 7758-97-6	TWA: 0.05 mg/m^3	TWA: 0.05 mg/m^3	TWA: 0.1 mg/m^3
Isophorone 78-59-1	CEILING:5 ppm ppm	TWA: 25 ppm TWA: 140 mg/m^3	IDLH: 200 ppm TWA: 4 ppm TWA: 140 mg/m^3

Appropriate engineering controls

Apply technical measures to comply with the occupational exposure limits. Local exhaust and mechanical ventilations are recommended to be used as engineering controls.

Individual protection measures, such as personal protective equipment:

Eye/Face protection: Safety glasses with side shields or chemical goggles must be worn.

Skin/Body protection: Wear protective gloves. Wear suitable protective clothing and footwear appropriate for the risk of exposure.

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.

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

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Property	Values	Remarks-Methods
Physical state:	Liquid	
Odor threshold:	Not determined	
pH:	Not determined	
Melting point/freezing point:	Not determined	
Boiling point/Boiling range:	Not determined	
Flash point:	18.3 °C / 65 °F	Tag Closed Cup
Evaporation Rate:	<1	butyl acetate = 1
Flammability (solid, gas):	Not determined	
Upper/lower flammability limits:	Not determined	
Vapor pressure:	Not determined	

Vapor density:	>1	air = 1
Specific gravity:	1.0	water = 1
Water solubility:	Complete	
Solubility in other solvents:	Not determined	
Partition Coefficient:	Not determined	
Auto-ignition Temperature:	Not determined	
Decomposition temperature:	Not determined	
Viscosity:	Not determined	
VOC Content (%):	78%	
VOC Content:	6.5 lbs/gal	

10. STABILITY AND REACTIVITY

Reactivity:
Not reactive under normal conditions.

Chemical Stability:
Stable under recommended storage conditions.

Possibility of hazardous reactions:
None under normal processing.

Conditions to avoid:
Keep out of reach of children. Keep away from heat, sparks and open flame. Keep away from contact with incompatible materials.

Incompatible materials:
Strong oxidizing agents

Hazardous decomposition products:
Carbon oxides, nitrogen oxides, thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact: Causes severe eye irritation

Skin contact: May be harmful if absorbed through skin.

Inhalation: May cause respiratory irritation.

Ingestion: May be harmful if swallowed

Component Information:

Chemical Name and CAS#	Oral LD50	Dermal LD50	Inhalation LC50
2-Methoxy-1-methylethyl acetate 108-65-6	= 6,190 mg/kg (Rat)	> 5,000 mg/kg (Rabbit)	> 23.4 mg/L (Rat) 6 h
4-Hydroxy-4-methyl-2-pentanone 123-42-2	= 4,000 mg/kg (Rat)	= 13,500 mg/kg (Rabbit)	= 1,500 ppm (Rat) 4 h
Methyl Isobutyl Ketone 108-10-1	= 2,080 mg/kg (Rat)	>10 ml/kg (Rabbit)	2000-4000 ppm (Rat) 4 h
Lead chromate pigment 7758-97-6	= 10,000 mg/kg (Rat)	No Data	No Data
Isophorone 78-59-1	= 1,500 mg/kg (Rat)	= 1,200 mg/kg (Rabbit)	= 7 mg/l (Rat) 4h Dust/mist

Information on physical, chemical and toxicological effects:

Symptoms Please see section 4 of this SDS for symptoms

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

Carcinogenicity:

Chemical Name	ACGIH	IARC	NTP	OSHA
Methyl Isobutyl Ketone	No	2B	No	No
Lead chromate pigment 7758-97-6		Group 2B		
Isophorone	A3	No	No	No

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)
A1 – Confirmed human carcinogen
A2 – Suspected human carcinogen
A3 - Confirmed animal carcinogen with unknown relevance to humans
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A – Probably Carcinogenic to Humans
Group 2B – Limited evidence of carcinogenicity
NTP (National Toxicology Program)
Known - Known Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Numerical measures of toxicity:

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Component Information

Chemical Name and CAS#	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
2-Methoxy-1-methylethyl acetate 67-63-0	EC50 – Selenastrum capricornutum - > 1000 mg/L – 96h	LC50 – Oryzias latipes – 63.5 mg/L – 14d		EC50 - Daphnid – >100 mg/L – 21d
4-Hydroxy-4-methyl-2-pentanone 123-42-2		LC50 – Lepomis macrochirus – 420 mg/L – 96h		EC50 – Daphnia magna – 9,000 mg/L – 24h
Methyl Isobutyl Ketone 108-10-1	No data available	LC50 – Golden orfe – 675-750 mg/L – 48h	No data available	LC50 – Water flea – 4,300 mg/L – 24h
Lead Chromate Pigment 7758-97-6	EC50 – Scenedesmus suspicatus - >100 mg/l – 72h	LC50- Leucisus idus- >10,000 mg/l – 96h		EC50- Daphnia magna - >100 mg/l – 48h
Isophorone 78-59-1		LC50 – Pimephales promelas – 145 mg/L – 96h		EC50 – Daphnia magna – 120 mg/L – 48h

Persistence/Degradability:

Not determined

Bioaccumulation:
Not determined

Mobility:
Not determined

Other Adverse Effects:
Very toxic to aquatic life with long lasting effects

13. DISPOSAL CONSIDERATIONS

Disposal of Wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging: Dispose of as unused product in accordance with applicable regional, national and local laws and regulations.

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SECTION 14 – TRANSPORTATION INFORMATION

DOT

UN number	1210
Proper shipping name	PRINTING INK
Hazard class	3
Packing group	II
ERG#	129

IATA

UN number	1210
Proper shipping name	PRINTING INK
Hazard class	3
Packing group	II

IMDG

UN number	1210
Proper shipping name	PRINTING INK
Hazard class	3
Packing group	II
Marine pollutant	Yes

SECTION 15 – REGULATORY INFORMATION

TSCA STATUS: All Components listed

OTHER REGULATORY:

Ingredient(s)	SARA 302	SARA 311/312	SARA 313	RECRA	CERCLA
2-Methoxy-1-methylethyl acetate	No	F	No	No	No
4-Hydroxy-4-methyl-2-pentanone	No	F, A, C	No	No	No
Methyl Isobutyl Ketone	No	F, A	Yes	U161	Yes
Lead Chromate Pigment	No	C	Yes	No	No
Isophorone	No	A	No	No	Yes

SARA 311/312 Codes: R = Reactive Hazard
P = Pressure Hazard
F = Fire Hazard
A = Immediate/Acute
C = Delayed/Chronic

California Prop. 65 Components: Chemicals known to the state of California to cause birth defects or other reproductive harm:

Lead Chromate
Methyl Isobutyl Ketone

SECTION 16 – OTHER INFORMATION

HMIS:

Health:	2
Chronic Health Hazard	*
Flammability:	3
Reactivity:	0

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Revision Note: New SDS format

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