

MATERIAL SAFETY DATA SHEET

Manufactured for: The Alsa Corporation
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Vernon, CA 90058

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Section One – General Information

Material Name: Xposures Black Backing
Material Description: Enamel Gloss Screen Ink
Date Revised: December 2, 2004

H M I S Codes

HEALTH: 2*
FLAMMABILITY: 2
REACTIVITY: 0
PPE: X
Weight lb/gal 9.8
VOC g/L 366
VOC lb/gal 3.1
% VOC volume 39

CHEMICAL NAME; COMMON NAME; CAS NUMBER	PERCENT BY WEIGHT	OCCUPATIONAL EXPOSURE LIMITS —ACGIH— TLV		—OSHA— PEL	VAPOR PRESSURE IN mmHg	NOTES
RESIN MIXTURES: CAS #: Not Available	26-57	NOT ESTABLISHED	NOT ESTABLISHED		<1 @ 20C	
PETROLEUM DISTILLATE; ALIPHATIC HYDROCARBON: CAS #: 64742-88-7	0-49	100 ppm	100 ppm		0.5 @ 20C	(1)
PETROLEUM DISTILLATE; ALIPHATIC HYDROCARBON: CAS #: 8052-41-3	0-28	100 ppm	100 ppm		2.0 @ 20C	(2)
BARIUM SULFATE; CAS #: 7727-43-7	0-27	10 mg/m3	10 mg/m3 Total Dust		N/A	
PETROLEUM DISTILLATE; ALIPHATIC HYDROCARBON: CAS #: 64742-48-9	0-17	NOT ESTABLISHED	NOT ESTABLISHED		<10 @ 25C	(3)
CRYSTALLINE SILICA; CRISTOBALITE: CAS #: 14464-46-1	0-17	.050 mg/m3 Respirable dust	.50 mg/m3 Respirable dust		N/A	
* XYLENE: DIETHYLBENZENE; CAS #: 1330-20-7	2	100 ppm STEL: 150 ppm	100 ppm STEL: 150 ppm		6.6 @ 20C	(4)
PETROLEUM DISTILLATE; AROMATIC HYDROCARBON; CAS #: 64742-94-5	0-2	NOT ESTABLISHED	NOT ESTABLISHED		<1 @ 20C	(5)

METHYL ETHYL KETOXIME; ALKYL KETOXIME: CAS #: 96-29-7	0-2	NOT ESTABLISHED	NOT ESTABLISHED	4.0 P 20C	
TITANIUM DIOXIDE; CAS #: 13463-67-7	0-45	10 mg/m3	10 mg/m3	N/A	
PIGMENTS; MIXTURE: CAS #: NOT AVAILABLE	0-21	10 mg/m3 Total dust	15 mg/m3 Total dust	N/A	(6)
SILICA, AMORPHOUS: CAS #: 112926-00-8	0-19	10 mg/m3	6 mg/m3	N/A	
CALCIUM CARBONATE: CAS #: See note	0-14	10 rag/m3 Total dust	15 mg/m3 Total dust	N/A	(7)
IRON OXIDE: CAS #: 1309-37-1	0-10	5 mg/ra3 Fume/Dust	10 mg/m3 Total Dust	N/A	
CARBON BLACK; PIGMENT BLACK: CAS #: 1333-86-4	0-6	3.500 mg/m3	35.00 mg/m3	N/A	
* MANGANESE COMPOUNDS: CAS #: 7439-96-5;	0-6	.200 mg/m3	NOT ESTABLISHED Ceiling 5 mg/m3	N/A	(8)
CRYSTALLINE SILICA QUARTZ CAS #: 14808-60-7	0-.90	.100 ng/m3 Respirable dust	1.00 mg/m3 Respirable dust	N/A	
* COBALT COMPOUNDS: CAS #: 7440-48-4:	0-.20	.020 rag/m3	.50 stg/m3	N/A	(9)

111 OF SARA (40 CFR PART 372).

- 1) Exposure Units are for Stoddard Solvent CAS# 8052-41-3.
- 2) Exposure limits are for Stoddard Solvent.
- 3) Supplier recommended exposure limit of 300 ppm.
- 4) This chemical is included on the list of Hazardous Air Pollutants (HAPs) from Title III of the Clean Air Act Amendments of 1990.
- 5) Industry recommended exposure limit of 100 ppm.
- 6) See Section 8 Exposure Controls. Personal Protection- Exposure Guidelines for more information on exposure limits.
- 7) This applies to CAS#s 1317-65-3 and 471-34-1.
- 8) Exposure limits are for elemental and inorganic compounds.

This chemical is included on the list of Hazardous Air Pollutants (HAPs) from Title III of the Clean Air Act Amendments of 1990 (Manganese Compounds). However, emissions of this chemical are not expected when using this product as intended. 9)' CAS # and PEL are for cobalt metal, dust and fumes.

This chemical is included on the list of Hazardous Air Pollutants (HAPs) from Title III of the Clean Air Act Amendments of 1990 (Cobalt Compounds). However, emissions of this chemical are not expected when using this product as intended.

The recommended permissible exposure limits (PEL) indicated above reflects the levels adopted by OSHA in 1989. Although, some of the 1989 levels have since been vacated, the ALSA Corporation recommends that the lower exposure levels be observed as reasonable worker protection.

NOTE: Due to the broad spectrum of colors each MSDS may represent, ranges of some ingredients listed in Section 2 may exceed those specified in the Canadian Controlled Product Regulations. If specific concentration information is needed to comply with this regulation contact ALSA.

SECTION 3 -- HAZARDS IDENTIFICATION

GENERAL HEALTH EFFECTS

THE FOLLOWING INFORMATION HAS BEEN DEVELOPED BASED UPON USING THE PRODUCT AS INTENDED BY THE MANUFACTURER. The potential health effects of this product are based on the hazards of its components. The use of this product in combination with other products may produce synergistic (additive) health effects. Cautionary labeling and material safety data sheets of all materials used with this product should be reviewed before use.

EYES

Eye contact with liquid, vapors or mists may cause irritation, including burning, tearing, redness or swelling.

SKIN

Repeated or prolonged overexposure may cause skin irritation or dermatitis. Symptoms may include dryness, chapping and redness. This material may be absorbed through the skin. Skin absorption is possible but harmful effects are not expected from this route of exposure under normal conditions of handling and use.

INHALATION

Repeated and prolonged overexposure by inhalation may cause respiratory tract irritation. Symptoms may include central nervous system disorders such as headaches, dizziness, weakness and fatigue.

INGESTION

Ingestion may cause gastrointestinal tract irritation. Symptoms may include drowsiness and dizziness. Ingestion may cause vomiting. Aspiration of material into lungs may cause chemical pneumonitis which can be fatal.

CHRONIC EFFECTS/TARGET ORGANS

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Crystalline silica is classified as carcinogenic to humans by IARC (Group 1). Excessive exposure to crystalline silica is also a known cause of silicosis, a noncancerous lung disease. Overexposure should not occur during normal use. "Cobalt and cobalt compounds" is possibly carcinogenic to humans (Group 2B) by IARC.

ANIMAL STUDIES

Methyl ethyl ketoxime, in a chronic oral toxicity animal study, produced an adverse effect upon red blood cells at all levels tested. Gross histopathologic alterations were observed in the spleen, lung and kidney. Xylene causes harm to the fetus in lab animal studies. The relevance of these findings to humans is uncertain. Repeated and prolonged overexposure to high concentrations of xylene has been suggested to cause the following effects in laboratory animals; hearing loss, mild reversible liver effects, kidney, lung, heart, spleen and nervous system effects. For animal studies, reference TSCA Section 4 Test Rule Results or contact the manufacturer for further details.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Pregnant women and persons with pre-existing health disorders should consult their physician before using this product. Repeated and prolonged overexposure and/or individual sensitivity may increase the potential for and degree of adverse health effects. See Section 3 "Hazards Identification" for effects of certain hazardous ingredients.

ROUTES OF EXPOSURE

Primary exposure routes: Inhalation-Dermal (Contact/Absorption)-Ingestion

SECTION 4 -- FIRST AID MEASURES**EYES**

After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If irritation persists have eyes examined and tested by medical personnel.

SKIN

In case of contact, immediately wash skin with soap and plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation persists. Thoroughly wash (or discard) clothing and shoes before reuse.

INHALATION

Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention if breathing difficulty is experienced.

INGESTION

If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

OTHER COMMENTS Not

Applicable

SECTION 5 -- FIRE FIGHTING MEASURES**FLASH POINT**

115 Degrees Fahrenheit (SETA Flash)

OSHA FLAMMABILITY CLASSIFICATION CNFPA

Class II Combustible Liquid

FLAMMABLE LIMITS (LEL-LOWER EXPLOSIVE LIMIT)

1.0* volume in air

EXTINGUISHING MEDIA

Foam-CO2-Dry Chemical-Water Spray

FIRE AND EXPLOSION HAZARDS

Isolate from heat, electrical equipment, sparks, and open flame. Keep containers tightly closed. Vapors may be heavier than air and can travel to a source of ignition then flash back. Closed containers may explode when exposed to extreme heat.

FIRE FIGHTING EQUIPMENT

Full protective equipment including self-contained breathing apparatus (SCBA) is recommended to protect firefighters.

SPECIAL FIRE FIGHTING PROCEDURES

Water may be ineffective but may be used to cool containers. Fumes released on burning may be toxic and dangerous.

SECTION 6 -- ACCIDENTAL RELEASE MEASURES**RELEASE MANAGEMENT MEASURES**

Remove all sources of ignition (flames, hot surfaces and electrical, static or fractional sparks). Avoid contact or breathing vapors. Ventilate area. Contain release and remove with inert absorbent. Use non-sparking tools to place material in appropriate container for disposal. The Infotrac Chemical Emergency Response (800)535-5053 and local authorities should be contacted for any reportable spill/release.

SECTION 7 -- HANDLING AND STORAGE**HANDLING AND STORAGE METHODS**

Use in a well ventilated area. Follow all MSDS/label precautions even after container is emptied; container may retain product residues. Store in closed containers in cool, dry, well ventilated area away from sources of ignition. Keep containers closed when not in use. Smoke in designated areas only. Avoid prolonged or repeated overexposure to this product. Keep out of reach of children. Follow label directions carefully. Do not take internally. Harmful or fatal if swallowed.

SECTION 8 -- EXPOSURE CONTROLS, PERSONAL PROTECTION**RESPIRATORY PROTECTION**

If concentrations of hazardous ingredients exceed exposure limits listed in Section 2 or if material is handled under mist, spray or dust forming conditions, an appropriate half mask or full face NIOSH (National Institute for Occupational Safety and Health) approved respirator with N100 (99.97* efficiency) cartridges should be used. If no exposure limits are listed in Section 2, follow general safety guidelines in 29 CFR 1910.134 Respiratory Protection or other applicable respiratory standard.

SKIN PROTECTION

Use neoprene, nitrile or other gloves resistant to chemicals listed in Section 2. Contact a reputable safety supply company for appropriate gloves. Solvent resistant aprons are recommended. Prevent prolonged skin contact with contaminated clothing.

EYE PROTECTION

Use ANSI (American National Standards Institute) approved safety glasses, face shield or splash proof goggles to prevent eye contact. Contact a reputable safety supply company for appropriate eye protection. The availability of an eye wash is highly recommended.

EXPOSURE GUIDELINES

See Section 2 'Composition, Information on Ingredients' for occupational exposure limits. Excessive concentrations of nuisance dusts or particulates not otherwise classified (PNOC) or regulated (PNOR) may reduce visibility and cause unpleasant deposits in the eyes, ears, and nasal passages. The TLV and PEL has been established for all non-toxic "nuisance dusts" that are not otherwise classified and refers to both organic and inorganic dusts. Exposure or generation of these dusts is not anticipated during normal printing operations. The use of dry pigments and powders, grinding or sanding of printed products **may** generate quantities of these particulates. Refer to Section 2 Composition, Information on Ingredients for exposure limits.

HYGIENIC PRACTICES

Wash with soap and water before eating, smoking or using toilet facilities. Separately wash or discard clothing and footwear before reuse. NEVER try to remove ink from the skin by using solvent or thinner. Such action is likely to increase the possibility of undesirable effects. Remove contaminated clothing to prevent prolonged skin contact.

ENGINEERING CONTROLS

Use applicable engineering controls, work practices and personal protective equipment to ensure all concentrations are kept below the exposure limits listed in Section 2.

OTHER PROTECTION

Not Applicable

SECTION 9 -- PHYSICAL AND CHEMICAL PROPERTIES**APPEARANCE:**

Viscous liquid

ODOR:

Characteristic

PHYSICAL STATE:
Liquid

pH
Not applicable

VAPOR PRESSURE
See Section 2 for individual ingredients.

VAPOR DENSITY
Heavier than air

BOILING POINT
Greater than 300 degrees Fahrenheit

FREEZING POINT
Not available

SOLUBILITY IN WATER Not
tested

EVAPORATION RATE
Slower than ether

VISCOSITY - Greater than
water

PERCENT VOLATILE BY VOLUME: SEE SECTION ONE

WEIGHT PER GALLON: SEE SECTION ONE VOC: SEE

SECTION ONE

PHOTOCHEMICALLY REACTIVE
No

Percent volatile = Percent VOC

SECTION 10 -- STABILITY AND REACTIVITY

CHEMICAL STABILITY
Stable

CONDITIONS TO AVOID
Avoid excessive heat, ignition sources, sparks and open flame.

INCOMPATIBILITY WITH OTHER MATERIALS
Strong acids/bases, oxidizing/reducing agents and reactive chemicals.

HAZARDOUS DECOMPOSITION PRODUCTS
May produce hazardous fumes when heated to decomposition e.g. carbon monoxide, carbon dioxide and other noxious gases.

HAZARDOUS POLYMERIZATION
Not anticipated during normal printing and storage conditions.

SECTION 11 -- TOXICOLOGICAL INFORMATION

EXPERIMENTAL TOXICITY DATA
Experimental toxicity data on xylene has given the following results: Oral LD50 Rat; 4300 mg/kg: Inhalation LC50 Rat: 6700 ppm.

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY
No Data Available

ENVIRONMENTAL FATE No
Data Available

SECTION 13 -- DISPOSAL CONSIDERATIONS**DISPOSAL METHODS**

Dispose of in accordance with applicable local, county, state, provincial and federal regulations. Emptied containers may retain hazardous properties. Empty containers should be disposed of in an environmentally safe manner in accordance with applicable regulations.

SECTION 14 - TRANSPORT INFORMATION**TRANSPORT INFORMATION**

DOT Proper Shipping Description: Printing Ink, 3, UN1210. PG III. In the U.S., this material may be reclassified as a Combustible liquid and is not regulated, via surface transportation, in containers less than 119 gallons or 450 liters [per 49 CFR 173.120 (b)(2)].

SECTION 15 -- REGULATORY INFORMATION**SARA TITLE III 313 INFORMATION**

See Section 2 "Composition. Information on Ingredients" for applicable chemicals.

TOXIC SUBSTANCES CONTROL ACT STATUS

All ingredients in Section 2 are listed on the Environmental Protection Agency's Toxic Substances Control Act (TSCA) Inventory.

OTHER REGULATORY INFORMATION

Not Applicable

SECTION 16 -- OTHER INFORMATION**DISCLOSURE**

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind express or implied is made with respect to the information contained herein. The data in this MSDS relates only to the specific material designated herein and does not apply to use in combination with any other material or process.

DEFINITIONS

ACGIH: American Conference of Governmental Industrial Hygienists

AIHA; American Industrial Hygiene Association

CEILING: (TLV-Ceiling and PEL Ceiling Limit) The ceiling exposure limit or concentration not to be exceeded for even brief times.

DOT: Department of Transportation

HMIS: The Hazardous Materials Identification System (HHIS) developed by the National Paint and Coatings Association (NPCA) to provide information on the acute health hazards, reactivity and flammability encountered in the workplace at room temperatures.

IARC: International Agency for Research on Cancer

NFPA: National Fire Protection Association NTP:

National Toxicology Program

STEL: Short-Term Exposure Limit: ACGIH terminology for the short-term exposure limit or maximum concentration for a continuous exposure period of 15 minutes.

TLV: Threshold Limit Value. A term ACGIH uses to express the airborne concentration of a material to which most workers can be exposed during a normal daily and weekly work schedule without adverse effects.

TWA: Time-Weighted Average

VOC: Volatile Organic Compound