

MATERIAL SAFETY DATA SHEET
According 91/155/CEE (93/112/EEC)

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

Material/Item name **CRYSTAL NAILS Hardener**
Product code: C05/21996 B
Normal use: 7571 Nail Polish

Manufacturer/Distributor:

Litrox Factory Investments LLC (443960-91)
US 8130 SW Portland, Oregon,
Beaverton-Hillsdale Highway 97225.

2. COMPOSITION/INFORMATION ON INGREDIENTS

This product is considered dangerous and contains the following hazardous substances:

Name	%	Index CEE	Cas	Einecs	Symbol(s)	Phrase(s) R
Formaldehyde	> 0 < 1	605-001-00-5	50-00-0	200-001-8	Xi F	23/24/25 34 40 43
Ethyl Acetate	> 40 < 50	607-022-00-5	141-78-6	205-500-4	Xi F	10 36 66 67
Nitrocellulose	> 10 < 20	----	9004-70-0	263-069-9	F Xi	11 36 67
n-Butyl Acetate	> 20 < 30	607-025-00-1	123-86-4	204-658-1	Xi F	10 66 67
Propane-2-ol	> 2 < 5	603-117-00-0	67-63-0	200-661-7	Xi F	11 36 67

3. HAZARDS IDENTIFICATION

Risk Phrases Irritant. Highly flammable. Causes burns
 Irritating to eyes. May cause sensitisation by skin contact
 Repeated exposure may cause drowsiness or cracking.
 Vapours may cause drowsiness and dizziness
 Limited evidence of a carcinogenic effect
Primary route of exposure Skin contact, inhalation of vapours

MATERIAL SAFETY DATA SHEET
According 91/155/CEE (93/112/EEC)

3. HAZARDS IDENTIFICATION (CONTINUED)

Symptoms associated with use:

- Inhalation :** Possible drowsiness and dizziness. Risk of respiratory problems.
- Skin contact:** Redness, pain. The skin absorbs part of the ingredients of this product. Can cause dry or chapped skin.
- Eye contact:** Redness, watering, blurred vision.
- Ingestion:** Health risk even in small quantities. Product should not come into contact with foodstuffs.

4. FIRST AID MEASURES

In general, in case of doubt or if symptoms persist, consult a physician and show the product label or this MSDS. Never give anything by mouth to a person who is unconscious or likely to become so (state of shock, etc ...)

- Inhalation:** Move to fresh air, keep warm and get medical advice.
If breathing is irregular or stops, give artificial respiration (if possible give oxygen) and contact the local Emergency Services.
- Skin contact:** Remove soiled clothing, clean affected areas with copious amounts of soapy water. Do not use solvents (thinners ...).
- Eye contact:** Rinse immediately with fresh water for 15 minutes holding eyelids open. Refer the victim to an ophthalmologist and show the product label or this MSDS; this should be treated as an emergency in case of symptoms (redness, pain, visual problems).
- Ingestion:** If quantity is small (less than a mouthful), rinse mouth with water. DO NOT induce vomiting. In all cases, seek medical attention.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

- **for minor fires:** Chemical powders, carbon dioxide and other extinguishing gases may be suitable for minor fires.
- **recommended:** Special foam for polar liquids.
- **to avoid:** Water without additives.

MATERIAL SAFETY DATA SHEET
According 91/155/CEE (93/112/EEC)

5. FIRE-FIGHTING MEASURES (CONTINUED)

Prevention: Avoid naked flames or other sources of ignition in areas where product is used; protect electrical equipment (risk of explosive zones). No smoking. Dry residue stay highly flammable (contain nitrocellulose)

Special procedure: Exercise caution when fighting any chemical fire. Use water to keep the containers exposed to fire cool. Avoid increase in pressure causing the release of the drum lid.
Fire often produces a dense black smoke; vapours heavier than air; exposure to decomposition products constitutes a serious health hazard. Do not inhale smoke.
Prevent fire-fighting effluent from entering drains, watercourses and/or environment.

Special equipment: Self-contained breathing apparatus to protect against toxic gases produced by thermal decomposition.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Remove all possible sources of ignition and thoroughly ventilate premises.
Do not inhale fumes. Avoid skin and eye contact. See Sections 7 et 8.

Environmental precautions: Prevent product from entering drains or watercourses.
If product contaminates ground water, rivers or drains (or is likely to do so), notify the relevant authorities, following the statutory procedures.

Cleaning / taking up: Clean up any spills as soon as possible, using a non-combustible absorbent material to collect it, for example: sand, earth, vermiculite, diatomic earth. Collect material into suitable drums for disposal in accordance with regulations (see Section 13). It is preferable to clean with detergents, do not use solvents.

7. HANDLING AND STORAGE

General: Handle in accordance with good industrial hygiene and safety procedures. Avoid naked flames or other sources of ignition in areas where product is used. No smoking. Do not allow unauthorized persons into areas where product is used.

MATERIAL SAFETY DATA SHEET
According 91/155/CEE (93/112/EEC)

7. HANDLING AND STORAGE (CONTINUED)

- Precautions in handling and storage:** Handle empty containers with care because residual vapours are flammable. Dry residue stay highly flammable (contain nitrocellulose). Do not allow pregnant women into areas where product is used.
- Technical protective measures:** Provide proper grounding. Use only non-sparking tools. Do not use compressed air to either agitate or transfer the contents of storage containers (tanks) / shipping drums containing this material
- Avoid build-up of static charges by:
ensuring that flooring is conductive and keeping it clean,
ensuring that equipment is earthed during transfer or stirring of the product or preparations containing the product, the use of antistatic shoes, clothing and packaging.
- Fumes are heavier than air and they may spread at ground level and form explosive mixtures with air.
- Avoid the formation of explosive concentrations and concentrations above occupational exposure limits.
- Storage:** Store in tightly closed containers in a cool, dry, well-ventilated place, away from sources of ignition.
- Handling:** Ensure prompt removal from eyes, skin and clothing.
- Recommended equipment and procedures:** For personal protection, see Section 8. Observe the precautions indicated on the label as well as workplace safety rules. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values:	TLV	PEL
Ethyl Acetate	400 ppm	-
Butyl Acetate	150 ppm	-
Isopropyl Alcohol	5mg/m ³	-
Respiratory protection:	If vapour concentrations exceed the established exposure limits, respiration protection is necessary, wear a gas mask with appropriate cartridge.	
Eye protection:	Use eye protection (chemical goggles or safety glasses) to avoid splashing.	

MATERIAL SAFETY DATA SHEET
According 91/155/CEE (93/112/EEC)

8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONTINUED)

- Hand protection:** Use gloves to prevent skin contact and possible irritation.
- Ingestion:** When using, do not eat, drink or smoke.
- Personal hygiene:** Minimize breathing of vapour. Avoid prolonged contact with skin.
Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance:** Colored liquid, viscous
- Odour:** Solvent.
- Boiling Point/Range (°C):** > 77 °C
- Flash Point (°C):** < 21 °C
- Explosive Limits % Vol:** lower upper
- | | | |
|-------------------|-----|------|
| Ethyl Acetate | 2,1 | 11,5 |
| Butyl Acetate | 1,2 | 7,5 |
| Isopropyl Alcohol | 2.0 | 12.7 |
- Specific gravity:** 0,95 - 1,05 gr/cm³ at 20 °C
- Solubility in water:** Not miscible.
- Viscosity at 25°C (mpas):** variable

10. STABILITY AND REACTIVITY

- Stability:** Stable under normal conditions.
- Conditions to be avoided:** Heating
- Materials to avoid:** Alkali metals, strong acids/alkalis, fluorine, hydrides, strong oxidizing agents, water with air and light
- Hazardous decomposition:** Thermal decomposition may liberate carbon and nitrogen oxides
- Further Information** Light sensitive, sensitive to air; unsuitable working materials: various plastics
Explosible with air in a vaporous/gaseous state

MATERIAL SAFETY DATA SHEET
According 91/155/CEE (93/112/EEC)

11. TOXICOLOGICAL INFORMATION

Exposure to levels above the values under Section 8, or regular exposure even if levels are lower, of vapours from solvents present in the preparation may be harmful for health; the effects through inhalation of the vapours and/or contact with skin on long or short time are : irritation of mucous membranes and respiratory tract, renal, liver and central nervous system affections.

Symptoms include headaches, dizziness, fatigue, muscular asthenia and, in extreme cases, unconsciousness.

Prolonged or repeated skin contact can lead to defatting, provoking non-allergic contact dermatitis and absorption of product through the skin. Splashes to the eyes can cause irritation and irreversible damage (possibility of lesions of at least 24 hours' duration).

May cause sensitisation by skin contact (due to formaldehyde in preparation)

12. ECOLOGICAL INFORMATION

Ecotoxic effects:

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
Risk of formation of explosive vapours above water surface.

Fish toxicity (LC₅₀) <i>L. idus</i>	specific to
Bacteria toxicity (EC₀) <i>Ps. putida</i>:	Solvents
Daphnia toxicity (EC₅₀):	

Do not allow to enter waters, waste water, or soil !

13. DISPOSAL CONSIDERATIONS

Material disposal: Avoid release to the environment.

Dispose of this material at hazardous or special waste collection point or give to an agreed waste collector/transporter for elimination or treatment..

Dispose in a safe manner in accordance with local regulations.

MATERIAL SAFETY DATA SHEET
According 91/155/CEE (93/112/EEC)

13. DISPOSAL CONSIDERATIONS (CONTINUED)

Container: The containers /drums for storage or transport have to be emptied before to be given to an agreed collector. Keep label on the container and dispose of it as hazardous waste.

14. TRANSPORT INFORMATION

Proper shipping name	Paint related material	UN:	1263
<u>ADR/RID:</u>			
H.I.:	33	ADR/RID:	3
Packaging Group	II		
<u>IMDG</u>			
IMCO:	3	EMS	3-05
Packaging Group	II	Flashpoint	- 4 °C
<u>IATA/IACO</u>			
ICAO Label:	Flammable liquid	Packaging Group	II

15. REGULATORY INFORMATION

Symbols	Irritant	Xi
	Highly flammable	F
R Phrases	R11	Highly flammable
	R36	Irritating to eyes
	R43	May cause sensitisation by skin contact
	R66	Repeated exposure may cause skin dryness or cracking
	R67	Vapours may cause drowsiness and dizziness.

MATERIAL SAFETY DATA SHEET
According 91/155/CEE (93/112/EEC)

15. REGULATORY INFORMATION (CONTINUED)

S Phrases	S3	Keep in a cool place
	S9	Keep container in a well-ventilated place
	S16	Keep away of sources of ignition – No smoking
	S24	Avoid contact with skin
	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
	S33	Take precautionary measures against static discharges
	S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
	S43	In case of fire, use special foam for polar liquids or chemical powders, carbon dioxide. Never use water.
	S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label or this MSDS when possible).

16. OTHER INFORMATION

The contents and format of this MSDS are in accordance with EEC Commission Directive 93/112/EEC.

DISCLAIMER OF LIABILITY The Information contained in this Material Safety Data Sheet was obtained from sources, which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge.

For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

Department issuing data specification sheet: EHS Department

Approved: Laboratory
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