

Section 1 Chemical Product and Company Identification

Product Identifier GPC® Block Out Marker
Product Number IR-CHE7377
General Use Used in photoengraving
Company Address UEI Systems®, a UEI Group Company
 9090 Nieman Road
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Section 2 Hazards Identification

GHS Classification

Hazard Class	Hazard Category	Route of Exposure
Flammable Liquid	2	–
Eye Irritation	2A	–
Skin Irritation	2	–
Reproductive Toxicity	2	
Acute Toxicity	4	Inhalation -Vapor
Specific to Target Organ Toxicity Repeated (Single Exposure)	3	Central Nervous System
Specific to Target Organ Toxicity Repeated (Repeated Exposure)	2	–
Aspiration Hazard	1	–

GHS Labeling Contains

Toluene (108-88-3)



Danger

Hazard Statements Highly flammable liquid and vapor.
 May be fatal if swallowed and enters airways
 Causes skin irritation
 May cause drowsiness or dizziness
 Suspected of damaging fertility or the unborn child
 May cause damage to organs through prolonged or repeated exposure
 Causes serious eye irritation
 Harmful if inhaled

Section 2 Hazards Identification, continued

- Precautionary Statements** Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Keep away from heat/sparks/open flames/hot surfaces
No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/ equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Do not breathe dust/fume/gas/mist/vapors spray
Wash skin thoroughly after handling
Use only outdoors or in a well-ventilated area
Avoid release to the environment
Wear protective gloves/eye protection/face protection
Use personal protective equipment as required
- Response** **If swallowed:** Immediately call a Poison Center or doctor/physician.
If on skin (or hair): Immediately remove all contaminated clothing. Rinse skin with water/shower.
If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Center or doctor/physician if you feel unwell.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention
If exposed or concerned: Get medical advice/attention
Do **not** induce vomiting
If skin irritation persists: Get medical advice/attention
Take off contaminated clothing and wash before reuse.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction
- Storage** Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
- Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations

Section 3 Hazardous Ingredients / Identity Information

Hazardous Components	CAS No.	%
Toluene	108-88-3	<100%
Resins	96-45-7	<30

Section 4 First Aid Measures

- In all cases, call a physician immediately.**
- General Advice** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of a dangerous area.
- If Inhaled** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician
- Skin Contact** Wash off with soap and plenty of water. Consult a physician.

Section 4 First Aid Measures, continued

Eye Contact	Flush eyes with water as a precaution
If Swallowed	Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Most important symptoms and effects, both acute and delayed	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	No data available

Section 5 Firefighting Measures

General Information	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire exposed containers cool. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.
Extinguishing Media	Use alcohol foam, carbon dioxide, dry chemical or water spray. Avoid solid streams of water which may spread burning liquid.
Flash Point	4° C
Auto-ignition Temperature	535° C
Explosion Limits	Lower 1.2 vol % Upper 7.0 vol %
NFPA Rating	(estimated) Health: 2 Flammability: 3 Instability: 0
Flammability Conditions	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flames/hot surface. Actual auto ignition temperature (AIT) can be affected by the concentration of vapors and oxygen, vapor/air contact time, pressure, volume, catalytic impurities, etc. Process conditions should be analyzed to determine if the AITs may be higher or lower. Vapor forms explosive mixture with air. Hazardous gases/vapors produced in fire are carbon monoxide.

Section 6 Accidental Release Measures

Personal Precautions	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection, see Section 8.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Methods for 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.)

Section 7 Handling and Storage

Handling Precautions Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation. Keep away from heat and flame.

Storage Requirements This product is a flammable liquid with regard to AS 1940. Storage should be in accordance with applicable state or federal regulation. Do not mix with strong oxidizing agents. Store in a well-ventilated place. Keep container tightly closed. Avoid breathing vapors or mist. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling.

Section 8 Component Exposure Limits

	Chemical Name	ACGIH TLV	NIOSH	OSHA (PEL/TWA)
	Toluene	100 ppm (TWA) Skin	100 ppm	100 ppm
Biological Limit Values	No data available			
Engineering Controls	Use sufficient ventilation to keep employee exposures below recommended limits.			
Eye Protection	Wear chemical splash goggles			
Skin Protection	Wear appropriate protective gloves and clothing to prevent skin exposure.			
Respiratory Protection	A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.			

Section 9 Physical and Chemical Properties

Appearance/Odor	Dark blue liquid /toluene odor	Odor Threshold	1.4 ppm
pH	No data available	Boiling Point	230°C (110° C)
Melting Point	-135° F (-93° C)	Solubility (H₂O)	No data available
Specific Gravity	≤1 (water = 1)	Density	No data available
Evaporation Rate	No data available	Lower Explosion Limit	1.2%
Auto Ignition	995° F/535° C (at 760 mmHg)	Upper Explosion Limit	7.0%
Flash Point	39° F (4° C)	Decomposition Temperature	No data available
Vapor Density	3.14 (air = 1)	Vapor Pressure	22 mmHg (20° C)
Flammability	Flammable liquid	Viscosity	10–20 cSt 73° F (23° C)

Section 10 Chemical Stability and Reactivity

Stability Stable at room temperature inclosed containers under normal storage and handling conditions.

Conditions to Avoid Ignition sources, moisture, excess heat

Incompatibility Strong oxidizing agents

Hazardous Decomposition/By-Products Carbon Monoxide, Carbon Dioxide

Hazardous Polymerization Will not occur

Section 11 Toxicological Information

Clear liquid with a sweet, pungent benzen-like odor. Causes irritation to the skin, eyes, mucous membranes and respiratory tract. Can be absorbed through the skin causing systemic effects. Liquid is flammable.

Toxicity Data	
Skin	Can be absorbed through the skin causing systemic effects similar to inhalation. Prolonged or repeated contact may cause mild to moderate irritation or dermatitis.
Eyes	Severe irritant. May produce transient corneal damage.
Inhalation	Irritating to the eyes, mucous membranes and respiratory tract. May cause labored breathing, central nervous system depression, tremors and decreased heart rate. At high concentrations, death from respiratory depression may occur. Repeated or prolonged exposures to high concentrations may cause kidney and liver damage.
Ingestion	Produces systemic effects similar to inhalation
Delayed effects	Liver and kidney damage, as well as blood and bone marrow effects have been reported in animals.
Acute Oral LD50	>5,580 mg/kg (rat)
Acute Dermal LD50	12,196 mg/kg (rabbit)
Delayed Subchronic and Chronic Effects	Liver and kidney damage reported in monkeys and rabbits (190 ppm) and rats (105.2 mg/m ³). Blood and bone marrow effects reported in rats, dogs and monkeys injected with 142–284 mg/kg.
Teratogenicity	Developmental Toxicity: Rat – Oral Effects on embryo or fetus: Fetotoxicity (except death, e.g., stunted fetus) Damage to fetus possible. Suspected human reproductive toxicant
Other Data	Lung irritation, chest pain, pulmonary edema, inhalation studies on toluene have demonstrated the development of inflammatory and ulcerous lesions to the penis, prepuce and scrotum in animals. Stomach – Irregularities, based on human evidence

Section 12 Ecological Information

Aquatic Toxicity

Component	Species	Exposure Time	LC50/EC50/IC50
Toluene (108-88-3)	<i>Lepomis Macrochirus</i> (bluegill)	96 hrs	LC50 74-340 mg/l
	<i>Oncorhynchus Mykiss</i> (rainbow trout)	96 hrs	LC50 7.63 mg/l
	<i>Pimephales Promelas</i> (fathead minnow)	7 days	NOEC 5.44 mg/l
	<i>Pimephales Promelas</i> (fathead minnow)	7 days	LOEC 8.04 mg/l
	<i>Daphnia Magna</i> (water flea)	24 hrs	EC50 8 mg/l
	<i>Daphnia Magna</i> (water flea)	48 hrs	EC50 (Immobilization) 6 mg/l
	<i>Chlorella Vulgaris</i> (fresh water algae)	24 hrs	EC50 45 mg/l
	<i>Pseudokirchneriella Subcapitata</i> (green algae)	24 hrs	EC50 10 mg/l

Section 12 Ecological Information, continued

Persistence/Degradability	No data available
Bioaccumulative Potential	No data available
Other Adverse Effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

Section 13 Disposal Considerations

Disposal Methods	Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
Other Disposal Considerations	40 CFR Section 268 should be consulted for federal regulatory requirement. The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

Section 14 Transportation Information

DOT (US)		IMDG		IATA	
UN number	1866	UN number	1866	UN number	1866
Class	3	Class	3	Class	3
Packing group	II	Packing group	II	Packing group	II
Proper shipping name	Resin solution	EMS-No	F-E, S-D	Proper shipping name	Resin solution
Reportable Quantity (RQ)	1,000 lbs	Proper shipping name	Resin solution		

Section 15 Regulatory Information

TSCA	Ingredients are listed on the TSCA inventory
OSHA	Flammable liquid, Target Organ Effect, Irritant, Teratogen, Reproductive hazard
Chemical Test Rules	None of the chemicals are listed under a Chemical Test Rule.
Section 12b	None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule	None of the chemicals in this material have a SNUR under TSCA
CERCLA Hazardous Substances and Corresponding RQs	Toluene: 5,000 lbs.
SARA Section 302	
Extremely Hazardous Substances	None of the chemicals in this product have a TPQ
California Prop 65	This product contains toluene which is a Proposition 65 chemical, known to cause birth defects or other reproductive harm.

Section 16

Other Information

UEI Systems® provides the information contained herein in good faith. It is believed to be correct. However it is not all-inclusive and should be used only as a guide. Individuals receiving this information must exercise their independent judgement in determining its appropriateness for a particular purpose. UEI Systems shall not be held liable for any damage resulting from handling or from contact with this product. All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources.

Abbreviations PEL Permissible Exposure Limit
TLV Threshold Limit Value

End Notes

1. SARA - Signed into law in 1986, the Superfund Amendments and Reauthorization Act (SARA) is an extension of CERCLA, and is intended to encourage and support local and state emergency planning efforts. SARA provides citizens and local governments with information about potential chemical hazards, and calls for facilities that store hazardous materials to provide officials and citizens with data on the type and amount on hand at specific locations. This field states whether a material is listed or not listed in section 372.65 of SARA. EHS - This states if a material is listed or not listed in Appendix B to part 355, the SARA Extremely Hazardous Substances (EHS) section. RQ is the reportable quantity. TPQ is the Threshold Planning Quantity.
2. RCRA - The Resource Conservation and Recovery Act enacted in 1976 and subsequently amended, controls solid-waste disposal and encourages recycling. This states whether a material is listed or not listed under this regulation. If listed the Hazardous Waste Number and waste characterization assigned by RCRA is also provided.
3. CERCLA - Enacted in 1980 and amended thereafter, the Comprehensive Environmental Response, Compensation, and Liability Act provides for identification and cleanup of hazardous materials released on land, into the air, waterways, and groundwater. It covers areas affected by newly released materials and older leaking or abandoned dump sites. This states whether a material is listed or not listed in CERCLA Table 302.4. If listed the section(s) that it is listed under and the Reportable Quantity (RQ) are also provided.
4. TSCA - The Toxic Substances Control Act controls the exposure to and use of raw industrial chemicals not subject to other laws. This states whether the chemical is listed or not listed under this regulation.

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