1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY UNDERTAKING

GHS Product Identifier

Product Name: USI Black Stencil Ink – USI White Stencil Ink – US Solvent

Product Code(s): 20221 USI Black Quart; 20211 USI Black Gallon; 26301 USI Black Ink Cartridge

20225 USI White Quart; 20125 USI White Gallon; 26305 USI White Cartridge

20202 USI Solvent Quart; 20201 USI Solvent Gallon

Recommended use of the chemical and restrictions on use

Recommended Use: Roller Stencil ink

Uses advised against: Keep out of reach of children. For industrial use only.

Supplier's Details

Supplier's Address:
U-Mark, Inc.
102 Iowa Ave.
Belleville, IL 62220
Tel: +1-618-235-7500

Emergency Telephone Number

Chemical Emergency Phone Number:
24-hour Emergency Phone: Infotrac 1-800-535-5053 (USA and Canada), +1-352-323-3500 (International)

2. HAZARDS IDENTIFICATION

Classification

This product is considered hazardous by the OSHA Hazard Communication Standard 2012 (29CFR 1910,1200)

Emergency Overview

GHS Label elements, including precautionary statements

GHS 02 Flame

Flammable Liquid and vapor (Hazard category 3)

GHS 07

Causes serious eye irritation (Hazard category 2A)

Signal word Warning

Hazard Statement Flammable liquid and vapor. Causes serious eye irritation.
Precautionary Statements

Prevention:
Keep away from heat/sparks/open flames/hot surfaces – No smoking. Use explosion proof electrical/ventilating/lighting equipment. Wear protective gloves/eye protection/face protection. Ground/bond containers and receiving equipment. Keep container tightly closed. Use only non-sparking tools. Take precautionary measures against static discharge. Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Response:
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor 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. In case of fire: Use for extinction: CO2, powder or water spray.

Storage:
Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Disposal
Dispose of contents/container in accordance with all local/regional/national/international regulations.

Information about particular dangers for man and environment:

Potential Chronic Health Effects:
Prolonged or repeated exposure of vapors, spray, or material may cause diseases of the lungs. Reports have associated repeated overexposure to solvents with brain and nervous system damage. Intentional misuse of this product may be harmful or fatal.

Target Organs:
Overexposure to this material or its components has been suggested as a cause of the following effects in laboratory animals and/or humans, and may aggravate preexisting disorders of these organs in humans: Anemia, Blood disorders, Brain damage, Cardiac function, eye, liver, lung, menstrual and fertility, skin, respiratory, Central Nervous System.

Other hazards:
Results of PBT and vPvB assessment
PBT: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diacetone Alcohol</td>
<td>123-42-2</td>
<td>40-80</td>
</tr>
<tr>
<td>(2-methoxymethyleneoxy) propanol (white only)</td>
<td>34590-94-8</td>
<td>7.21</td>
</tr>
<tr>
<td>Carbon Black (black only)</td>
<td>1333-86-4</td>
<td>8</td>
</tr>
<tr>
<td>Polymer of modified Rosin Resin (white only)</td>
<td>-</td>
<td>9</td>
</tr>
<tr>
<td>Titanium Dioxide (white only)</td>
<td>13463-67-7</td>
<td>34</td>
</tr>
<tr>
<td>Amorphous Fumed Silica, Silicone dioxide, Crystalline Free</td>
<td>112945-52-5</td>
<td>0.65-2</td>
</tr>
</tbody>
</table>

Additional Information: This product (white and black) contains pigments which may become a dust nuisance when removed by abrasive blasting or sanding. Airborne nuisance particulates have an ACGIH TLV for total dust of 10 mg/M3

4. FIRST AID MEASURES

Description of necessary first-aid measures

General Advice: Provide appropriate basic first aid. Move victim away from the hazard to a well-ventilated area. Keep victim warm and at rest. Seek medical advice. Ensure medical personnel are aware of materials involved.

Skin Contact: Remove contaminated clothing. Flush exposed area with large amounts of soap and water for 15 minutes. Launder clothing before reuse. If irritation exists call a doctor.

Eye Contact: Wash opened eyes immediately with water or saline solution for 20 to 30 minutes. Remove contact lenses if present and easy to do. If symptoms persist or there is visual difficulty, seek medical attention.

Inhalation: If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet.

Ingestion: If victim is conscious and breathing- do not induce vomiting! Rinse mouth thoroughly. Immediately call a Poison Control center or doctor.

Note to Physicians: Treat symptomatically.
5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. ABC powder.

Unsuitable Extinguishing Media:
Water.

Specific Hazards Arising from the Chemical:
Nitrogen oxides (NOx) Carbon monoxide (CO).

Advice for Firefighters

Protective equipment:
Wear self-contained respiratory protective device. Wear fully protective suit.

Additional information:
Dispose of fire debris and contaminated fire-fighting water in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures


Environmental Precautions: Do not allow product to reach sewage system or any water course. Prevent seepage into sewage system, work-pits and cellars. Inform respective authorities in case of seepage into water course or sewage system. Prevent from spreading (e.g. by damming-in or oil barriers).

Methods and materials for containment and cleaning up

Methods for Containment: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste according to item 13. Ensure adequate ventilation. Do not flush with water or aqueous cleansing agents.

Reference to other sections: See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7. HANDLING AND STORAGE

Precautions for safe handling


Hydrocarbon solvents are basically non-conductors of electricity and can become electrostatically charged during mixing or moving, observe grounding/grounding of containers and other equipment when handling.

Information about protection against explosions and fires: Keep ignition sources away - Do not smoke. Protect from heat. Protect against electrostatic charges. Prevent impact and friction. Use explosion-proof apparatus / fittings and spark-proof tools. Fumes can combine with air to form an explosive mixture. Flammable gas-air mixtures may be formed in empty receptacles.

Conditions for safe storage, including any incompatibilities

Storage: Store in a cool location. Store only in the original receptacle. Prevent any seepage into the ground.

Incompatible Products: Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Components with limit values that require monitoring at the workplace:
123-42-2 Diacetone Alcohol
PEL Long-term value: 240 mg/m³, 50 ppm
REL Long-term value: 240 mg/m³, 50 ppm
TLV Long-term value: 238 mg/m³, 50 ppm
Polymer of modified Rosin Resin
PEL Long-term value: 15* 5** mg/m³
*Total Dust  **Respirable Fraction

34590-94-8 (2-methoxymethyleneoxy) propanol (white ink only)
PEL Long-term value: 600 mg/m³, 100 ppm Skin
REL Short-term value: 900 mg/m³, 150 ppm
Long-term value: 600 mg/m³, 100 ppm Skin
TLV Short-term value: 909 mg/m³, 150 ppm
Long-term value: 606 mg/m³, 100 ppm Skin

112945-52-5 Amorphous Fumed Silica, Silicon Dioxide, Crystalline Free
TLV Long-term value: 3.5 mg/m³

13463-67-7 titanium dioxide (white ink only)
PEL Long-term value: 15* mg/m³*total dust
REL See Pocket Guide App. A
TLV Long-term value: 10 mg/m³ withdrawn from NIC

1333-86-4 Carbon black (black ink only)
PEL Long-term value: 3.5 mg/m³
REL Long-term value: 3.5* mg/m³*0.1 in presence of PAHs; See Pocket Guide Apps. A+C
TLV Long-term value: 3* mg/m³ *inhalable fraction

Exposure controls

General protective and hygienic measures:
The usual precautionary measures for handling chemicals should be followed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases / fumes / aerosols. Avoid contact with the skin. Avoid contact with the eyes and skin. Pregnant women should strictly avoid inhalation or skin contact.
Do not eat, drink, smoke or sniff while working.

Breathing equipment:
Use suitable respiratory protective device in case of insufficient ventilation. Use only with adequate ventilation. Do not breathe vapors, spray mists, or sanding dusts. Use air purifying respirators fitted with organic vapor/HEPA cartridges only if air monitoring demonstrates solvent/particulate levels do not exceed the respirator maximum use concentration. Use properly fitted NIOSH approved respirators. Local and general exhaust should minimize any exposure.

Hand Protection:
Wear appropriate chemical resistant gloves. Nitrile or natural rubber gloves are typically used to protect from minor contact. Butyl type are recommended for prolonged contact.

Eye protection:
Wear approved safety goggles. Vapor proof safety goggles or full face respirator.

Body protection: Solvent resistant protective clothing/Impervious protective clothing. Tyvek(R) coveralls to protect from light overspray protection or Saranex 23-P(R) for moderate exposure.

Other Protection:
Always wash hands, face, and arms with soap and clean water before eating, drinking, using cosmetics, smoking, or going to the toilet. Wash hands before breaks and at the end of work and apply skin-care agents. Keep away from food and beverages. Immediately remove all soiled clothing. Avoid contact with eyes and skin.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Alcohol-like</td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>150 -160° C (302-320° F)</td>
</tr>
<tr>
<td>Flash Point</td>
<td>24° C (75° F) (white ink) 58° C (136° F) (black ink)</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>1.1 hPa (1 mm Hg)</td>
</tr>
<tr>
<td>Explosion Limits</td>
<td>Lower: 1.4% Vol. ; Upper : 8.1% Vol.</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Not miscible or difficult to mix.</td>
</tr>
<tr>
<td>Density at 20° C (68° F)</td>
<td>1.34504 g/cm³ (white ink); 0.99371 g/cm³ (black ink)</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Conditions to be avoided
No decomposition if used according to specifications.

Possibility of hazardous reactions
Reacts with acids, alkalis and oxidizing agents.

Conditions to avoid
No further relevant information available.

Incompatible materials
No further relevant information available.

Hazardous decomposition products
Nitrogen oxides, Carbon monoxide and Carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity:
LD/LC50 values that are relevant for classification:

123-42-2 Diacetone alcohol
Oral LD50 4000 mg/kg (rat)
Dermal LD50 13630 mg/kg (rabbit)

Primary irritant effect:
On the skin: Irritant to skin and mucous membranes.
On the eye: Irritating effect.

Sensitization:
Sensitizing effect through inhalation is possible with prolonged exposure.
Sensitizing effect by skin contact is possible with prolonged exposure.

Additional toxicological information:
The product shows the following dangers according to internally approved calculation methods for preparations: Irritant. Danger through skin absorption. Vapors have narcotic effect.

Carcinogenic categories:
IARC (International Agency for Research on Cancer)
1333-86-4 Carbon black 2B 8.0% (black ink only)
13463-67-7 Titanium dioxide 2B 33.732% (white ink only)
Titanium Dioxide and Carbon black are considered possible carcinogens when in inhalable dust form.

NTP (National Toxicology Program)
None of the ingredients is listed.

12. ECOLOGICAL INFORMATION

Toxicity
Aquatic toxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

Bio-accumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Eco-toxic effects: Harmful to fish

Additional ecological information
General notes: This statement was deduced from the properties of the single components: Harmful to aquatic organisms

Results of PBT and vPvB assessment: PBT: Not applicable; vPvB: Not applicable.

Other adverse effects: No further relevant information available.
13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation:
Must not be disposed of with household garbage. Do not allow product to reach sewage system. Hand over to hazardous waste disposers. This material and unclean containers, if discarded, would be regulated as a hazardous waste under RCRA. Treatment and disposal must be completed at a RCRA permitted treatment, storage, and disposal facility (TSD). The storage and transportation of RCRA hazardous wastes are also regulated by the USEPA. Disposal of in accordance with all applicable local, State and federal regulations.

14. TRANSPORT INFORMATION

DOT (ground transportation) – IATA (air transportation) – IMDG/IMO (maritime transportation)
UN-Number UN1210
Proper shipping name: Printing Ink
Hazard Class 3
Packing Group III
Description UN1210, Printing Ink, 3, III

15. REGULATORY INFORMATION

Safety, Health and environmental regulation/legislation specific for the substance/mixture

State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):
Warning! This product contains the following chemicals which are listed by the State of California as carcinogenic (airborne, unbound particles of respirable size):
13463-67-7 Titanium dioxide (white ink);
1333-86-4 Carbon black (black ink)

Massachusetts Right to know components:
13463-67-7 Titanium dioxide (white ink);
1333-86-4 Carbon black (black ink)
123-42-2 Diacetone Alcohol
34590-94-8 (2-methoxyxmethyleneoxy) propanol (white ink only)

Pennsylvania Right to Know Components:
13463-67-7 Titanium dioxide (white ink);
1333-86-4 Carbon black (black ink)
123-42-2 Diacetone Alcohol
34590-94-8 (2-methoxyxmethyleneoxy) propanol (white ink only)

Minnesota Right to Know Components:
13463-67-7 Titanium dioxide (white ink);
1333-86-4 Carbon black (black ink)
123-42-2 Diacetone Alcohol
34590-94-8 (2-methoxyxmethyleneoxy) propanol (white ink only)

TSCA all ingredients are listed or exempt:
13463-67-7 Titanium dioxide (white ink);
1333-86-4 Carbon black (black ink)
123-42-2 Diacetone Alcohol
34590-94-8 (2-methoxyxmethyleneoxy) propanol (white ink only)
16. OTHER INFORMATION

Prepared By: compliance@umarkers.com
U-Mark, Inc.
102 Iowa Ave.
Belleville, IL 62220
Tel: +1-618-235-7500

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General Disclaimer
The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet