



SAFETY DATA SHEET

1. Identification

Product identifier	TS ULTRA 5000	
Other means of identification		
Product code	TSU5	
Recommended use	Screen Print Ink Spot Remover	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information	Manufacturer	
Company name	Tekmar	
Address	P.O Box 4700 Santa Barbara, CA 93140 United States	
Telephone	Product Stewardship	805-965-0704
	Transportation	800-564-1096
Website	http://tekmarltd.com/	
E-mail	techsupport@tekmarltd.com	
Emergency phone number	Chemtrec	800-424-9300
	Emergency Phone	805-965-0704
	International	++703 527-3887
Supplier	Refer to Manufacturer	

2. Hazard(s) identification

HAZARD STATEMENTS:

H313	May be harmful in contact with skin
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360	May damage fertility or the unborn child.
H371	May cause damage to organs.
H412	Harmful 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.
P233	Keep container tightly closed.
P260	Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ 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 victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously 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.
P309 + P311	IF exposed or if you feel unwell: Call a POISON CENTER or doctor/ physician.
P321	Specific treatment (see supplemental first aid instructions on this label).
P332 + P313	If skin irritation occurs: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P362	Take off contaminated clothing and wash before reuse.

P403 + P233
P403 + P235
P405
P501

Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents/ container to an approved waste disposal plant.

SEE SECTIONS 8, 11 & 12 FOR TOXICOLOGICAL INFORMATION

LABEL ELEMENTS



Signal word

Danger

**Precautionary statement
Prevention**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapor. Wash hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/clothing and eye/face protection

Response

If exposed or concerned: Get medical advice/attention. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. 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.

Storage

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

Disposal

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

**Hazard(s) not otherwise
classified (HNOC)**

No OSHA defined hazard classes.

Other hazards which do not result in classification:

Burning produces obnoxious and toxic fumes. May hydrolyze very slowly in the presence of water to form acids. May cause severe irritation and corrosive damage in the mouth, throat and stomach. Ingestion of large amounts may cause nausea, vomiting, diarrhea, as well as depression of the central nervous system. Inhalation could result in pulmonary edema (fluid accumulation). Symptoms of pulmonary edema (chest pain, shortness of breath) may be delayed

3. Composition/information on ingredients

MATERIAL

CAS #

WT %

1-Bromopropane

106-94-5

40-<72

tert-Butyl Acetate

540-88-5

20-<38

The exact concentrations of the above listed chemicals are being withheld as a trade secret as allowed by 29CFR1910.1200.

4. First-aid measures

EYE CONTACT:

For eyes, flush with plenty of water for 15 minutes & get medical attention.

SKIN CONTACT:

In case of contact with skin immediately remove contaminated clothing. Wash thoroughly with soap & water. Wash contaminated clothing before reuse.

INHALATION:

After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, trained personnel should immediately begin artificial respiration. If the heart has stopped, trained personnel should immediately begin cardiopulmonary resuscitation (CPR).

SWALLOWING:

Rinse mouth.. Do NOT induce vomiting. GET MEDICAL ATTENTION IMMEDIATELY. Do NOT give liquids to an unconscious or convulsing person.

5. Fire-fighting measures

FIRE & EXPLOSION PREVENTIVE MEASURES:

No open flames, NO sparks, & NO smoking. Above flash point, use a closed system, ventilation, explosion-proof equipment, lighting.

EXTINGUISHING MEDIA:

Use dry powder, carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES:

Water spray may be ineffective on fire but can protect fire-fighters & cool closed containers. Use fog nozzles if water is used. Do not enter confined fire-space without full bunker gear. (Helmet with face shield, bunker coats, gloves & rubber boots). Use NIOSH approved positive-pressure self-contained breathing apparatus.

UNUSUAL EXPLOSION AND FIRE PROCEDURES:

Isolate from oxidizers, heat, sparks, electric equipment & open flame. Closed containers may explode if exposed to extreme heat. Applying to hot surfaces requires special precautions. Empty container very hazardous! Continue all label precautions!

6. Accidental release measures

PERSONAL PROTECTIVE MEASURES:

Vapors may ignite explosively & spread long distances. Prevent vapour buildup

Keep unprotected personnel away.

Ventilate spill area. Remove all ignition sources. Filter respirator for organic vapors.

ENVIRONMENTAL PRECAUTIONS:

Keep from entering storm sewers and ditches which lead to waterways.

CONTAINMENT AND CLEAN-UP MEASURES:

Stop spill at source. Dike and contain.

Absorb remaining liquid in sand or inert absorbent.

7. Handling and storage

HANDLING:

Isolate from oxidizers, heat, sparks, electric equipment & open flame. Use only with adequate ventilation. Avoid breathing of vapor or spray mist. Do not get in eyes, on skin or clothing.

Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse.

Avoid free fall of liquid. Ground containers when transferring. Do not flame cut, saw, drill, braze, or weld. Empty container very hazardous! Continue all label precautions!

Drinking alcohol shortly before, during or after use can cause unwanted effects.

To minimize static discharge when transferring, ensure electrical continuity by bonding and grounding all

Equipment. Use an inlet line diameter of at least 3.5 inches (8.9 centimeters) with a maximum flow rate of 1 meter/second.

STORAGE:

Isolate from strong oxidants. Do not store above 49 C/ 120 F. Contact with hot surfaces can produce toxic gases.
Keep container tightly closed & upright when not in use to prevent leakage.

8. Exposure controls/personal protection

<u>MATERIAL</u>	<u>CAS #</u>	<u>TWA(OSHA)</u>	<u>TLV(EXXON)</u>
1-Bromopropane	106-94-5	None Known	10 ppm
tert-Butyl Acetate	540-88-5	50 ppm	None Known

This product contains no EPA Hazardous Air Pollutants (HAP) in amounts > 0.1%.

RESPIRATORY EXPOSURE CONTROLS:

A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z86.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

PERSONAL PROTECTIONS:

Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear goggles, face shield, gloves, apron & footwear impervious to material. Wash clothing before reuse

WORK & HYGIENIC PRACTICES:

Provide readily accessible eye wash stations & safety showers.
Wash at end of each workshift & before eating, smoking or using the toilet.
Promptly remove clothing that becomes contaminated. Destroy contaminated leather articles. Launder or discard contaminated clothing.

9. Physical and chemical properties

Appearance	Liquid, Water-White
Odor	Ester
Odor threshold	Not Available
pH (Neutrality):	Not applicable
Melting point/Freezing point:	Not Available
Boiling range (IBP, 50%, Dry point)	154 - 188 - 197°C/310 – 372 - 387°F (*=End point)
Flash point (Test Method)	> 100 C /> 212 F (PMCC)
Evaporation Rate (n-Butyl acetate+1)	Not applicable
Flammability classification	Class III-B
Lower flammable limit in air	5.5
Upper flammable limit in air	Not Available
Vapor pressure (mm of hg) @20 C	61.5
Vapor density (Air=1)	4.4
Gravity @ 68/68 F/ 20/20 C	
Specific gravity (water=1)	1.128
Pounds/gal	9.390
Water solubility	Negligible
Partition coefficient (n-Octane/water)	Not Available
Auto ignition temperature	423 C/ 795 F
Decomposition temperature	Not Available
Voc's (>0.44 Lbs/Sq In)	0.00 vol %/ 0.00 g/l / 0.000 lbs/gal
Total Voc's (TVOC)*	100.0 Vol% / 732.7 g/l / 6.1 lbs/gal

Nonezempt Voc's (CVOC)*
Hazardous air pollutants (HAPS)
Non-exempt voc partial pressure
(mm of hg @ 20 C)

54.2 Vol% / 732.7 g/l / 6.12 lbs/gal
0.0 wt% / 0.0 g/l / 0.00 lbs/gal
55.5

*Using California South Coast Air Quality Management District (SCAQMD) rule 443.1

10. Stability and reactivity

Stability:

Stable under normal conditions.

Conditions to avoid:

Isolate from oxidizers, heat, sparks, electric equipment & open flame.

Materials to avoid:

Reacts with strong oxidants, causing fire & explosion hazard.

Hazardous decomposition products:

Carbon monoxide, carbon dioxide, hydrogen chloride, phosgene, hydrogen bromide, bromine from burning.

Hazardous polymerization:

Will not occur.

11. Toxicological information

EYE & SKIN CONTACT:

Primary irritation to skin, defatting, dermatitis.

Primary irritation to eyes, redness, tearing, blurred vision.

Liquid can cause eye irritation. Wash thoroughly after handling.

INHALATION:

Anesthetic. Irritates respiratory tract. Acute overexposure can cause serious nervous system depression Which can cause death. Vapor harmful.

Concentrated vapour in confined areas may be fatal.

SWALLOWING:

Swallowing can cause abdominal irritation, nausea, vomiting & diarrhea. The symptoms of chemical pneumonitis may not show up for a few days.

SUBCHRONIC HAZARDS/CONDITIONS AGGRAVATED

CONDITIONS AGGRAVATED:

Persons with severe skin, liver or kidney problems should avoid use.

CHRONIC HAZARDS CANCER, REPRODUCTIVE & OTHER

CHRONIC HAZARDS:

This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date, greater or equal to 0.1%.

MAMMALIAN TOXICITY INFORMATION

MATERIAL	CAS #	LOWEST KNOWN LETHAL DOSE DATA
1-Bromopropane	106-94-5	4,260 mg/kg Oral Rat
tert-Butyl Acetate	540-88-5	4,100 mg/kg Oral Rat
1,2-Epoxybutane	106-88-7	500 mg/kg Oral Rat
tert-Butyl Alcohol	75-65-0	2,743 mg/kg Oral Rat

12. Ecological information

AQUATIC ANIMAL INFORMATION:

No aquatic environmental information is available on this product.

MOBILITY IN SOIL:

This material is a mobile liquid.

DEGRADABILITY:

This product is partially biodegradable.

ACCUMULATION:

Bioaccumulation of this product has not been determined.

13. Disposal Considerations

Processing, use or contamination may change the waste management options. Recycle/dispose of observing national, regional, state, provincial and local health, safety & pollution laws. If in doubt, contact appropriate agencies.

14. Transportation Considerations

DOT SHIPPING NAME: Not Regulated

DRUM/LABEL: Not Regulated

IATA/ICAO: Not Regulated.

IMO/IMDG: Not Regulated

EMERGENCY RESPONSE GUIDEBOOK NUMBER: None

15. Regulatory Considerations

EPA REGULATION:

SARA Section 311/312 HAZARDS: Acute Health

All components of this product are on the TSCA list.

SARA Title III Section 313 Supplier Notification

This product contains the indicated (*) toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning & Community Right-To-Know Act of 1986 & of 40 CFR 372. This information must be included in all MSDSs that are copied and distributed for this material.

SARA TITLE III INGREDIENTS	CAS #	EINECS #	WT% (REG.SECTION)	RQ(LBS)
1, 2-Eopxybutane	106-88-7	-	0-1 (311,312,313,RCRA)	100

CALIFORNIA PROPOSITION 65:

This product contains n-Propyl Bromide which is known to the state of California to cause reproductive toxicity.

INTERNATIONAL REGULATIONS:

The components of this product are listed on the chemical inventories of the following countries: Australia (AICS), Canada (DSL, NDSL), China (IECSC), Europe (EINECS, ELINCS), Japan (METI/CSCL, MSLW/ISHL), South Korea (KECI), New Zealand (NZIoC), Philippines (PICCS), Switzerland (SWISS), Taiwan (NECSI), USA (TSCA).

CANADA: WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

B3: Combustible Liquid

D2B: Irritating to
skin/eyes

16. OTHER INFORMATION

HMIS HAZARD RATINGS:

HEALTH: *2 FLAMMABILITY: 1 PHYSICAL HAZARD: 0 PERSONAL PROTECTION: X

HAZARD RATING KEY:

4 = Extreme, 3 = High, 2 = Moderate, 1 = Slight, 0 = Insignificant, * = Chronic Health Hazard. X = Ask Supervisor - Personal Protection Rating to be supplied by user based on use conditions. This information is intended solely for the use of individuals trained in the HMIS hazard Rating systems.

EMPLOYEE TRAINING:

See Section 2 for Risk & Safety Statements. Employees should be made aware of all hazards of this Material (as stated in this SDS) before handling it.

List of abbreviations ACGIH: American Conference of Governmental Industrial Hygienists CAS: Chemical Abstract Services
CERCLA: Comprehensive Environmental Response, Compensation and Liability Act of 1980 CFR: Code of Federal Regulations
DOT: Department of Transportation EPA: Environmental Protection Agency
EPCRA: Emergency Planning and Community Right-to-Know Act ERG: Emergency Response Guidebook
HSDB® - Hazardous Substances Data Bank
IARC: International Agency for Research on Cancer IATA: International Air Transport Association
IBC: Intermediate Bulk Container
IMDG: International Maritime Dangerous Goods LC: Lethal Concentration
LD: Lethal Dose
NIOSH: National Institute of Occupational Safety and Health NOEC: No observable effect concentration
NTP: National Toxicology Program
OECD: Organisation for Economic Co operation and Development OEL: National occupational exposure limits
OSHA: Occupational Safety and Health Administration PEL: Permissible exposure limit
RCRA: Resource Conservation and Recovery Act RQ: Reportable Quantity
RTECS: Registry of Toxic Effects of Chemical Substances SCBA: self-contained breathing apparatus
SDS: Safety Data Sheet
STEL: Short Term Exposure Limit TWA: Time Weighted Average UN: United Nations

References

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices (2014) Canadian Centre for Occupational Health and Safety, CCIInfoWeb Databases, 2014 (Chempendium, RTECs, HSDB, INCHEM)
International Agency for Research on Cancer Monographs (2014) Material Safety Data Sheet from manufacturer.
OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2014.

Disclaimer

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