

redimark

SAFETY DATA SHEET T601K Black Ink

1. Identification

Product identifier

Product name T601K Black Ink
Product number 71085167
Container size Single Use Cartridge,5 Pack

Recommended use of the chemical and restrictions on use

Application Printing ink.
Uses advised against No specific uses advised against are identified.

Details of the supplier of the safety data sheet

Supplier Redimark
 27520 SW 95th Avenue
 Wilsonville, OR 97070

Emergency telephone number

Emergency telephone Chemtrec US : 1-800-424-9300 Chemtrec World: 1-703-527-3887

2. Hazard(s) identification

Classification of the substance or mixture

OSHA Regulatory Status This Product is Hazardous under the OSHA Hazard Communication Standard.
Physical hazards Flam. Liq. 2 - H225
Health hazards Not Classified
Environmental hazards Aquatic Chronic 3 - H412

Label elements

Pictogram



Signal word Danger
Hazard statements H225 Highly flammable liquid and vapor.
 H412 Harmful to aquatic life with long lasting effects.
Comments Full list of Hazard Statements is found in Sec. 16
Precautionary statements P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents/container in accordance with national regulations.

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3. Composition/information on ingredients

Mixtures

Ethanol	80-100%
CAS number: 67-17-5	
Classification	
Flam. Liq. 2 - H225	
Eye Irrit. 2A - H319	
Dye Stuff	5-10%
CAS number: —	
Classification	
Not Classified	
Cyclohexanone	5-10%
CAS number: 108-94-1	
Classification	
Flam. Liq. 3 - H226	
Acute Tox. 4 - H302	
Acute Tox. 4 - H332	
Skin Irrit. 2 - H315	
Eye Dam. 1 - H318	

The Full Text for all Hazard Statements are Displayed in Section 16.

4. First-aid measures

Description of first aid measures

General information	Consult a physician for specific advice. Show this Safety Data Sheet to the medical personnel.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention immediately.
Ingestion	Get medical attention immediately. Do not induce vomiting unless under the direction of medical personnel. Never give anything by mouth to an unconscious person.
Skin Contact	Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing. Wash clothing and clean shoes thoroughly before reuse.
Eye contact	Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

General information	See Section 11 for additional information on health hazards.
Inhalation	May be harmful if inhaled. Vapor may affect central nervous system. Vapours may cause drowsiness and dizziness. Vapors irritate the respiratory system.

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Ingestion	Harmful if swallowed. May cause nausea, headache, dizziness and intoxication.
Skin contact	Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.
Eye contact	This product is moderately irritating. Symptoms following overexposure to vapor may include the following: Severe irritation, burning, tearing and blurred vision.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Water spray.

Special hazards arising from the substance or mixture

Flammability Class 7.1 Flammable Liquid IB.

Specific hazards Flammable liquid and vapour. Vapors are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO₂). Carbon monoxide (CO).

Advice for firefighters

Protective actions during firefighting Evacuate area. Stop leak if safe to do so. Use water to keep fire exposed containers cool and disperse vapors. Use water spray to reduce vapors.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions No smoking, sparks, flames or other sources of ignition near spillage. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapors. Wash thoroughly after dealing with a spillage.

Environmental precautions

Environmental precautions Avoid release to the environment.

Methods and material for containment and cleaning up

Methods for cleaning up Eliminate all sources of ignition. Stop leak if safe to do so. Contain and absorb spillage with sand, earth or other non-combustible material. Dilute contained spill with water. Collect and place in suitable waste disposal containers and seal securely.

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions Wear protective clothing as described in Section 8 of this safety data sheet.

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Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Provide eyewash station and safety shower. Good personal hygiene procedures should be implemented. Wash skin thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage precautions Keep only in the original container in a cool, well-ventilated place.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

Control parameters

Occupational exposure limits

Ethanol

Long-term exposure limit (8-hour TWA): OSHA 1000 ppm 1900 mg/m³

Short-term exposure limit (15-minute): ACGIH 1000 ppm 1880 mg/m³

Cyclohexanone

Long-term exposure limit (8-hour TWA): ACGIH 20 ppm

Long-term exposure limit (8-hour TWA): OSHA 50 ppm 200 mg/m³

Short-term exposure limit (15-minute): ACGIH 50 ppm

A3, Sk

OSHA = Occupational Safety and Health Administration.

ACGIH = American Conference of Governmental Industrial Hygienists.

A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.

Sk = Danger of cutaneous absorption.

Ingredient comments Data based on literature. Product not tested.

Cyclohexanone (CAS: 108-94-1)

Immediate danger to life and health 700 ppm

Exposure controls

Protective equipment



Appropriate engineering controls

As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapor or mist. Use explosion-proof ventilating equipment.

Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield.

Hand protection

It is recommended that chemical-resistant, impervious gloves are worn. The most suitable glove should be chosen in consultation with the glove supplier/manufacture, who can provide information about the breakthrough time of the glove material. It is recommended that gloves are made of the following material: Butyl rubber. Nitrile rubber. Rubber (natural, latex). Frequent changes are recommended.

Other skin and body protection

Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures

Provide eyewash station and safety shower.

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Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Organic vapor filter.
Thermal hazards	If there is a risk of contact with hot product, all protective equipment worn should be suitable for use with high temperatures.
Environmental exposure controls	Keep container tightly sealed when not in use. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Black.
Odor	Alcoholic.
Odor threshold	Not available.
pH	pH (concentrated solution): 6.0 - 8.5
Melting point	-89°C/-128°F
Initial boiling point and range	63°C/147°F @ 760 mm Hg
Flash point	4°C/40°F CC (Closed cup).
Evaporation rate	8.3 (diethyl ether = 1)
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: 19 % vol Lower flammable/explosive limit: 1.4 % vol
Vapour pressure	42.9 mm Hg @ 20°C/68°F
Vapour density	1.5
Relative density	0.84 g/cc
Solubility(ies)	Soluble in the following materials: Alcohols. Soluble in water.
Partition coefficient	log Pow: -0.3
Auto-ignition temperature	398°C/750°F
Decomposition Temperature	Not applicable.
Explosive properties	Not applicable.
Oxidising properties	Not applicable.
Comments	Data based on literature. Product not tested. Information given is applicable to the product as supplied. Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures.
Volatile organic compound	No information available.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	Stable at normal ambient temperatures and when used as recommended.
Possibility of hazardous reactions	The following materials may react with the product: Strong oxidizing agents.

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Conditions to avoid	Avoid the following conditions: Heat, sparks, flames.
Materials to avoid	Avoid contact with the following materials: Strong oxidizing agents.
Hazardous decomposition products	Heating may generate the following products: Carbon dioxide (CO ₂). Carbon monoxide (CO).

11. Toxicological information

Information on toxicological effects

Toxicological effects Data based on literature. Product not tested.

Acute toxicity - oral

ATE oral (mg/kg) 5,543.24

Acute toxicity - dermal

ATE dermal (mg/kg) 12,195.12

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 121.95

Specific target organ toxicity - single exposure

Target organs Eyes Gastro-intestinal tract Respiratory system, lungs Skin

Specific target organ toxicity - repeated exposure

Target organs Blood Central nervous system Gastro-intestinal tract Kidneys Liver Skin

Aspiration hazard

Aspiration hazard Not relevant.

Toxicological information on ingredients.

Ethanol

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 10,470.0

Species Rat

ATE oral (mg/kg) 10,470.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 15,800.0

Species Rabbit

ATE dermal (mg/kg) 15,800.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 30,000.0

Species Rat

ATE inhalation (vapours mg/l) 30,000.0

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Cyclohexanone

Acute toxicity - oral

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

ATE dermal (mg/kg) 1,100.0

Acute toxicity - inhalation

ATE inhalation (vapours
mg/l) 11.0

Carcinogenicity

IARC carcinogenicity IARC Group 3 Not classifiable as to its carcinogenicity to humans.

12. Ecological Information

Ecotoxicity Data based on literature. Product not tested.

Toxicity

Ecological information on ingredients.

Ethanol

Acute toxicity - fish LC₅₀, 96 hours: 14,200 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates NOEC, 9 days: 9.6 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: 275 mg/l, Freshwater algae

Cyclohexanone

Acute toxicity - aquatic invertebrates EC₅₀, 24 hours: 820 mg/l, Daphnia magna

Persistence and degradability

Ecological information on ingredients.

Ethanol

Persistence and degradability The product is readily biodegradable.

Cyclohexanone

Biodegradation - 90 - 100:

Bioaccumulative potential

Partition coefficient log Pow: -0.3

13. Disposal considerations

Waste treatment methods

General information

Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

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Disposal methods Dispose of contents/container in accordance with national regulations. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. When handling waste, the safety precautions applying to handling of the product should be considered.

14. Transport information

UN Number

UN No. (DOT) 1210

UN No. (IMDG) 1210

UN No. (ICAO) 1210

UN proper shipping name

Proper shipping name (DOT) PRINTING INK

Proper shipping name
(IMDG) PRINTING INK

Proper shipping name (ICAO) PRINTING INK

Transport hazard class(es)

IMDG Class 3

ICAO class/division 3

Transport labels



Packing group

DOT pack group II

IMDG packing group II

ICAO packing group II

Environmental hazards

Environmentally Hazardous Substance

No.

Special precautions for user

EmS F-E, S-D

15. Regulatory information

Regulatory Status Hazardous Chemical

Regulatory References OSHA Hazard Communication Standard, 29 CFR 1910.1200

US State Regulations

California Directors List of Hazardous Substances

The following ingredients are listed or exempt:

Ethanol

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Cyclohexanone

Massachusetts "Right To Know" List

The following ingredients are listed or exempt:

Ethanol

Cyclohexanone

Rhode Island "Right To Know" List

The following ingredients are listed or exempt:

Ethanol

Cyclohexanone

Minnesota "Right To Know" List

The following ingredients are listed or exempt:

Ethanol

Cyclohexanone

New Jersey "Right To Know" List

The following ingredients are listed or exempt:

Ethanol

Cyclohexanone

Pennsylvania "Right To Know" List

The following ingredients are listed or exempt:

Ethanol

Cyclohexanone

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA

All the ingredients are listed or exempt.

Australia - AICS

The following ingredients are listed or exempt:

Japan - MITI

The following ingredients are listed or exempt:

Korea - KECI

The following ingredients are listed or exempt:

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China - IECSC

The following ingredients are listed or exempt:

Philippines - PICCS

The following ingredients are listed or exempt:

16. Other information

General information	Containers of this material may be hazardous when emptied, all hazard precautions given in the data sheet must be observed.
Issued by	Matthews Marking Systems - Chemical Services Department
Revision date	3/4/2016
Revision	1
SDS No.	5852
SDS status	Approved.
Hazard statements in full	H225 Highly flammable liquid and vapor. H302 Harmful if swallowed. H312 Harmful in contact with skin. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H412 Harmful to aquatic life with long lasting effects.
NFPA - health hazard	Irritation, minor residual injury. (1)
NFPA - flammability hazard	Ignites easily. (3)
NFPA - instability hazard	Normally stable. (0)
ACA HMIS Health rating.	Moderate hazard. (2)
ACA HMIS Flammability rating.	Ignites easily. (3)
ACA HMIS Physical hazard rating.	Normally stable. (0)
ACA HMIS Personal protection rating.	B

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.