Signet 'T' Ink Red

Safety Data Sheet

according to the WHS Regulations
Issue date: 14/02/2023 Version: 1.0

SECTION 1: Product identifier

1.1. GHS Product identifier

Product form : Mixture
Product name : Signet 'T' Ink Red
Product code : 12095

1.2. Other means of identification

Synonyms : M10 Pen Ink;

1.3. Recommended use of the chemical and restrictions on use

Recommended use : M10 Marking Pen Ink
Restrictions on use : Not to be used for any purpose other than the one the product was designed for

1.4. Details of manufacturer or importer

Supplier
Signet Pty Ltd
56 Ingleston Rd
WAKERLEY, QLD 4154
Australia
T +61 (07) 3179 2100
sales@signet.net.au - www.signet.net.au

1.5. Emergency phone number

Emergency number : Office hours: +61 (07) 3179 2100
Poisons Information Centre (24 h): 13 11 26

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

Flammable liquids, Category 3	H226
Acute toxicity (dermal), Category 4	H312
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2A	H319
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335
Specific target organ toxicity – Repeated exposure, Category 2	H373
Aspiration hazard, Category 1	H304

2.2. GHS Label elements, including precautionary statements

Hazard pictograms (GHS AU) :

Flame | Exclamation mark | Health hazard

Signal word (GHS AU) : Danger
Contains : xylene (≥ 60 %); ethylene glycol monobutyl ether (10 – 30 %); Modified Rosin Ester (< 10 %)
Hazard statements (GHS AU) : H226 - Flammable liquid and vapour
H304 - May be fatal if swallowed and enters airways
H312 - Harmful in contact with skin
H315 - Causes skin irritation

		H319 - Causes serious eye irritation H335 - May cause respiratory irritation H373 - May cause damage to organs through prolonged or repeated exposure
Precautionary statements (GHS AU)	:	P101 - If medical advice is needed, have product container or label at hand. P102 - Keep out of reach of children. P103 - Read carefully and follow all instructions. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P240 - Ground and bond container and receiving equipment. P241 - Use explosion-proof equipment. P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P264 - Wash hands, forearms and face thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area. P280 - Wear face shield, protective clothing, protective gloves.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition and information on ingredients

Name	CAS-No.	%
xylene	1330-20-7	≥ 60
ethylene glycol monobutyl ether	111-76-2	10 – 30

SECTION 4: First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	:	Call a physician immediately.
First-aid measures after inhalation	:	Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	:	Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	:	Rinse immediately with plenty of water. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	:	Call a physician immediately. Do not induce vomiting.

4.2. Symptoms caused by exposure

Symptoms/effects after inhalation	:	May cause respiratory irritation.
Symptoms/effects after skin contact	:	Irritation.
Symptoms/effects after eye contact	:	Eye irritation.
Symptoms/effects after ingestion	:	Risk of lung oedema.

4.3. Medical attention and special treatment

Other medical advice or treatment	:	Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	:	Unsuitable extinguishing media are not known.

5.2. Specific hazards arising from the chemical

Fire hazard	:	Flammable liquid and vapour.

General measures : No action shall be taken without appropriate training or involving any personal risk. Notify authorities if product enters sewers or public waters.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Keep upwind. Fight fire from safe distance and protected location.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Hazchem Code : * 3Y

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : No action shall be taken without appropriate training or involving any personal risk. Notify authorities if product enters sewers or public waters.

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin, eyes and clothing.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Use only outdoors or in a well-ventilated area.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

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

Information on mixed storage : Store away from incompatible materials and products. Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity.

Storage area : Keep out of direct sunlight.

Special rules on packaging : Position containers so that any labeling information is visible. Keep packaging closed when not in use. Check containers and packaging regularly for leaks and damage.

Packaging materials : Keep only in original packaging.

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

ethylene glycol monobutyl ether (111-76-2)	
Australia - Occupational Exposure Limits	
Local name	2-Butoxyethanol (Butyl cellosolve; Butyl glycol; Ethylene glycol monobutyl ether; Glycol monobutyl ether)
OES TWA [1]	96.9 mg/m³
OES TWA [2]	20 ppm
OES STEL	242 mg/m³
OES STEL [ppm]	50 ppm
Remark (AU)	Sk - Absorption through the skin may be a significant source of exposure.
Regulatory reference	Workplace exposure standards for airborne contaminants (2019)

8.2. Monitoring methods

Monitoring methods : Workplace exposure - General requirements for the performance of procedures for the measurement of chemical agents. Gas detectors should be used when flammable gases/vapours may be released.

8.3. Engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Use spark-/explosionproof appliances and lighting system. Use grounded electrical/mechanical equipment.

8.4. Individual protection measures, such as personal protective equipment (PPE)

Personal protective equipment : Personal protective equipment (PPE) must be suited to the nature of the work and any hazard associated with the work as identified by the risk assessment conducted.
Avoid all unnecessary exposure. Safety shower with an appropriate liquid. Ocular shower with suitable liquid.

Hand protection : Wear protective gloves: Antistatic gloves

Eye protection : Eye protection is provided by the respiratory protection (see section)

Skin and body protection : Wear foot protection: antistatic boots. Wear protective clothing: Antistatic clothing, Flame retardant protective clothing

Respiratory protection : Wear appropriate mask: Combined full gas/dust mask with filter type

Personal protective equipment symbol(s)

Consumer exposure controls : Personal protective equipment (PPE) is not required when handling individual retail pack.

Other information : PPE compliant to the recommended standards should be selected. The following Australian and New Zealand Standards will provide general advice regarding safety clothing and equipment: Respiratory equipment: AS/NZS 1715, Protective Gloves: AS 2161, Industrial Clothing: AS2919, Industrial Eye Protection: AS1336 and AS/NZS 1337, Occupational Protective Footwear: AS/NZS2210.

SECTION 9: Physical and chemical properties

Physical state : Liquid

Appearance : Coloured low viscosity flammable liquid with a distinct hydrocarbon odour.

Molecular mass : Not applicable

Colour : Red

Odour : Not available

Odour threshold : No data available

pH	:	Not available
pH solution	:	Not available
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point / Freezing point	:	Melting point: Not available
Boiling point	:	138 – 171 °C
Flash point	:	30 °C (CC).
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
Flammability	:	No data available
Vapour pressure	:	Vapour pressure: 0.15 – 1 kPa at 25°C.
Relative density	:	No data available
Density	:	Density: ≈ 0.9 kg/l
Solubility	:	Water: immiscible
Partition coefficient n-octanol/water (Log Pow)	:	Not available
Viscosity, kinematic	:	Not available
Viscosity, dynamic	:	< 7 cP
Explosive properties	:	No data available
Explosive limits	:	No data available
Minimum ignition energy	:	No data available
VOC content	:	Not available
Fat solubility	:	No data available

SECTION 10: Stability and reactivity

Reactivity	:	Flammable liquid and vapour.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reactions known under normal conditions of use.
Conditions to avoid	:	Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.
Incompatible materials	:	Strong acids. Strong bases. Strong oxidizers.
Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Harmful in contact with skin.
Acute toxicity (inhalation)	:	Not classified

Signet 'T' Ink Red	
ATE AU (dermal)	1229.215 mg/kg bodyweight

xylene (1330-20-7)	
LD50 oral	4300 mg/kg bodyweight
LD50 dermal	> 5000 mg/kg bodyweight
LC50 Inhalation - Rat (Dust/Mist)	> 10000 mg/l

ethylene glycol monobutyl ether (111-76-2)	
LD50 oral	1414 mg/kg bodyweight Animal: guinea pig, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1020 - 1961
LD50 dermal rat	> 2000 mg/kg Source: ECHA

Skin corrosion/irritation	:	Causes skin irritation. pH: Not available
Serious eye damage/irritation	:	Causes serious eye irritation. pH: Not available
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified

Reproductive toxicity : Not classified
STOT-single exposure : May cause respiratory irritation.

xylene (1330-20-7)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

xylene (1330-20-7)	
LOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)

ethylene glycol monobutyl ether (111-76-2)	
NOAEL (dermal, rat/rabbit, 90 days)	> 150 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study), Remarks on results: other:
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : May be fatal if swallowed and enters airways.

Signet 'T' Ink Red	
Viscosity, kinematic	Not available

xylene (1330-20-7)	
Aliphatic, alicyclic or aromatic hydrocarbon	Yes
Animal studies and expert judgment for classification	False

ethylene glycol monobutyl ether (111-76-2)	
Animal studies and expert judgment for classification	False

SECTION 12: Ecological information

According to the National Code of Practice for the Preparation of Material Safety Data Sheets, Environmental classification information is not mandatory. Information relevant for GHS classification is available on request

12.1. Ecotoxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short–term (acute) : Not classified
Hazardous to the aquatic environment, long–term (chronic) : Not classified

xylene (1330-20-7)	
EC50 - Other aquatic organisms [1]	350 mg/l waterflea
LOEC (chronic)	3.16 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'

ethylene glycol monobutyl ether (111-76-2)	
LC50 - Fish [1]	1474 mg/l Source: ECHA
EC50 - Crustacea [1]	1800 mg/l Source: ECHA
NOEC (chronic)	100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	≥ 100 mg/l Test organisms (species): Oryzias latipes Duration: '14 d'
Partition coefficient n-octanol/water (Log Pow)	0.81 Source: ECHA

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Signet 'T' Ink Red	
Partition coefficient n-octanol/water (Log Pow)	Not available

ethylene glycol monobutyl ether (111-76-2)	
Partition coefficient n-octanol/water (Log Pow)	0.81 Source: ECHA

12.4. Mobility in soil

Signet 'T' Ink Red	
Partition coefficient n-octanol/water (Log Pow)	Not available

ethylene glycol monobutyl ether (111-76-2)	
Partition coefficient n-octanol/water (Log Pow)	0.81 Source: ECHA

12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

Signet 'T' Ink Red	
Fluorinated greenhouse gases	False

xylene (1330-20-7)	
Fluorinated greenhouse gases	False

ethylene glycol monobutyl ether (111-76-2)	
Fluorinated greenhouse gases	False

SECTION 13: Disposal considerations

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information : Flammable vapours may accumulate in the container.

SECTION 14: Transport information

ADG	IMDG	IATA
14.1. UN number		
1210	1210	1210
14.2. UN Proper Shipping Name		
PRINTING INK	PRINTING INK	Printing ink
14.3. Transport hazard class(es)		
3	3	3
		
14.4. Packing group		
III - Substances presenting low danger	III	III

ADG	IMDG	IATA
14.5. Environmental hazards		
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No

14.6. Special precautions for user

Specific storage requirement : No data available
Shock sensitivity : No data available

14.7. Additional information

Other information : No supplementary information available

Transport by road and rail

UN-No. (ADG) : 1210
Special provision (ADG) : 163, 223, 367
Limited quantities (ADG) : 5l
Excepted quantities (ADG) : E1
Packing instructions (ADG) : P001, IBC03, LP01
Special packing provisions (ADG) : PP1
Portable tank and bulk container instructions (ADG) : T2
Portable tank and bulk container special provisions (ADG) : TP1

Transport by sea

UN-No. (IMDG) : 1210
Special provisions (IMDG) : 163, 223, 367, 955
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P001, LP01
Special packing provisions (IMDG) : PP1
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T2
Tank special provisions (IMDG) : TP1
EmS-No. (Fire) : F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage) : S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS
Stowage category (IMDG) : A
Properties and observations (IMDG) : Fluid or viscous liquid containing colouring matter in solution or suspension. Miscibility with water depends upon the solvent.

Air transport

UN-No. (IATA) : 1210
PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y344
PCA limited quantity max net quantity (IATA) : 10L
PCA packing instructions (IATA) : 355
PCA max net quantity (IATA) : 60L
CAO packing instructions (IATA) : 366
CAO max net quantity (IATA) : 220L
Special provisions (IATA) : A3, A72, A192
ERG code (IATA) : 3L

14.8. Hazchem or Emergency Action Code

Hazchem Code : * 3Y

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

Australian Industrial Chemicals Introduction Scheme (AICIS)

Australian Inventory of Industrial Chemicals (AICIS Inventory) status : Listed

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Relevant Poisons Schedule number : Schedule 6

15.2. International agreements

No additional information available

SECTION 16: Other information

Indication of changes:

Update of the SDS from former GHS version to the 7th edition of the GHS (GHS 7).

Data sources : Safe Work Australia - Code of Practice - Preparation of Safety Data Sheets for Hazardous Chemicals
Safe Work Australia - Code of Practice - Labelling of Workplace Hazardous Chemicals
Safe Work Australia - Workplace Exposure Standards for Airborne Contaminants
Safe Work Australia - Hazardous Chemical Information System (HCIS)
Australian Inventory of Industrial Chemicals (AICIS Inventory)
Environmental Protection Authority - Hazardous Substances (Hazard Classification) Notice 2020
Environmental Protection Authority - Hazardous Substances (Safety Data Sheets) Notice 2017
Environmental Protection Authority - Hazardous Substances (Labelling) Notice 2017
New Zealand - Chemical Classification and Information Database (CCID)
New Zealand - Inventory of Chemicals (NZIoC)
European Chemicals Agency (ECHA) - Annex VI (C&L Inventory)
European Chemicals Agency (ECHA) - REACH Study Results
European Chemicals Agency (ECHA) - REACH Registration Dossiers
United Nations - Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
Uniform Scheduling of Medicines and Poisons (SUSMP)
United Nations Recommendations on the Transport of Dangerous Goods (UNRTDG Model Regulation)
Australian Dangerous Goods Code (ADG Code)
International Air Transport Association Dangerous Goods Regulations (IATA DGR)
International Maritime Dangerous Goods (IMDG Code).

Classification	
Flam. Liq. 3	H226
Acute Tox. 4 (Dermal)	H312
Skin Irrit. 2	H315
Eye Irrit. 2A	H319
STOT SE 3	H335
STOT RE 2	H373
Asp. Tox. 1	H304

Full text of H-statements	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4

Full text of H-statements	
Acute Tox. 4 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Acute Tox. 5 (Dermal)	Acute toxicity (dermal), Category 5
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. 3	Flammable liquids, Category 3
Flam. Liq. 4	Flammable liquids, Category 4
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour
H227	Combustible liquid
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H313	May be harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H373	May cause damage to organs through prolonged or repeated exposure

Safety Data Sheet (SDS), Australia

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.