



01 IDENTIFICATION OF THE SUBSTANCE & COMPANY IDENTIFICATION

Product Name	: Permanent Markers (Various Colours).
Company Identification	: Royd Tool Group.
Company Address	: Saxon House, 23 Springfield Lyons Approach, Springfield, Chelmsford, CM2 5LB.
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02 HAZARDS IDENTIFICATION

Risk and Safety phrases	<p>Ingredients are marked according to CLP Regulation (CLP-Regulation (EC) No. 1272/2008) and according to DSD (Dangerous Substances Directive (67/548/EEC)) and DPD (Dangerous Preparations Directive (1999/45/EC)) and no workplace-related occupational exposure limits are specified for any of the listed ingredients.</p>
EC Label Elements Hazard symbols	<div style="display: flex; justify-content: space-around; align-items: center;">   </div> <div style="display: flex; justify-content: space-around; align-items: center;"> GHS02 GHS05 </div>
Signal Word	DANGER!
Hazard Statements	<p>H225 – Highly flammable liquid and vapour. H302 – Harmful if swallowed. H318 – Causes serious eye damage. H317 – May cause an allergic skin reaction.</p>
Precautionary Statements	<p>P210 – Keep away from heat. P233 – Keep container tightly closed. P240 – Ground/bond container and receiving equipment. P241 – Use explosion-proof electrical/ventilating/lighting/any other/ equipment. P242 – Use only non-sparking tools. P243 – Take precautionary measures against static discharge. P264 – Wash face, hands and any exposed skin thoroughly after handling. P270 – Do not eat, drink or smoke when using this product. P272 – Contaminated work clothing should not be allowed in the workplace. P280 – Wear protective gloves/protective clothing/eye protection/face protection.</p>
Response Precautionary Codes	<p>P303+P361+P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P370+P378 – In case of fire: Use alcohol resistant foam for extinction. P301+P312 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330 – Rinse mouth. P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 – Immediately call a POISON CENTER or doctor/physician. P302+P352 – IF ON SKIN: Wash with plenty of soap and water. P333+P313 – If skin irritation or rash occurs: Get medical advice/attention. P321 – Specific treatment (see supplemental first aid instructions on this label). P363 – Wash contaminated clothing before reuse.</p>

Storage Precautionary Codes P403+P235 - Store in a well-ventilated place. Keep cool.

Disposal Precautionary Codes P501 - Dispose of contents/container in accordance with local, regional, national Regulations.

03 COMPOSITION/INFORMATION ON INGREDIENTS

Black Ink			
Components	%W/W	CAS No.	EC No.
Industrial Spirit	0 – 69.71	64-17-5	200-578-6
Dowanol – PM	0 – 10	107-98-2	203-539-1
Rosin Acid	0 - 0.09	73138-82-6	277-299-1
CO Polymer	0 – 9.1	25054-06-2	607-515-5
Solvent Red 39	0 – 0.9	65138-66-1	265-499-1
N Propanol	0 – 0.9	71-23-8	200-746-9
N Butanol	0 – 0.9	71-36-3	200-751-6
Solvent Black 46-2	0 – 8.5	65294-17-9	265-686-8

Blue Ink			
Components	%W/W	CAS No.	EC No.
Industrial Spirit	0 – 68.11	64-17-5	200-578-6
Dowanol – PM	0 – 14	107-98-2	203-539-1
Solvent Blue 4	0 – 0.9	6786-83-0	229-851-8
Rosin Acid	0 – 0.09	73138-82-6	277-299-1
Co Polymer	0 – 9.1	25054-06-2	607-515-5
N Propanol	0 – 0.9	71-23-8	200-746-9
N Butanol	0 – 0.9	71-36-3	200-751-6
Solvent Blue 43	0 – 5.61	61813-75-0	612-411-8
Basic Blue 7	0 – 0.3	2390-60-5	219-232-0
Basic Blue 26	0 – 0.09	2580-56-5	219-943-6

Red Ink			
Components	%W/W	CAS No.	EC No.
Industrial Spirit	38 – 71.41	64-17-5	200-578-6
Dowanol – PM	0 – 14	107-98-2	203-539-1
Solvent Red 39	0 – 0.9	65138-66-1	265-499-1
N Propanol	0 – 0.9	71-23-8	200-746-9
N Butanol	0 – 0.9	71-36-3	200-751-6
CO Polymer	0 – 10	25054-06-2	607-515-5
Solvent Red 49	0 – 0.9	509-34-2	208-096-8
Solvent Orange 62	0 – 0.9	52256-37-8	257-789-1
Basic Red 1	0 – 0.09	989-38-8	213-584-9

04 FIRST AID MEASURES

Inhalation	If inhaled, move affected person into fresh air, keep warm and allow to rest. In case of respiratory tract irritation consult a physician.
Skin Contact	In case of skin contact, wash with soap and water. Get medical attention if irritation develops.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If irritation persists consult an ophthalmologist.
Ingestion	If swallowed, rinse mouth thoroughly with water. Do not induce vomiting without medical advice.

05 FIRE FIGHTING MEASURES

Extinguishing Media	Sand, foam, dry chemical, carbon dioxide (CO ₂), Alcohol resistant foams (ATC) are preferred, if available.
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06 ACCIDENTAL RELEASE MEASURES

Personal Precautions	See FIRST AID MEASURES (Section 4 above) Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (i.e., vermiculite, dry sand, and earth), and place in a chemical waste container. Do not use combustible materials, such as sawdust. Do not flush to sewer! If leak or spill has not ignited, use water spray to disperse the vapours, to protect
Environmental Exposure Controls	Absorb with liquid bonding material and remove residuals with lot of water. Avoid release to the environment

07 ACCIDENTAL RELEASE MEASURES

Handling	Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where there is fire hazard. Separate from incompatibles. Storage and use areas should be NO SMOKING areas. Use non-sparking tools and equipment. Containers of this material may be hazardous when empty since they retain product residues (vapours, liquid); observe all warnings and precautions listed for the product.
Storage	Store in a cool, dry, well ventilated place, in securely closed original container. Flammable/combustible - Keep away from oxidizing agents, heat and flames.

08 EXPOSURE CONTROLS/ PERSONAL PROTECTION

Respirators	Provide adequate ventilation, including appropriate local extraction if dusts, fumes or vapours are likely to be evolved. Where engineering controls are not fitted or inadequate, wear suitable respiratory protective equipment
Eye Protection	Use chemical safety glasses or goggles with side protection (EN 166) and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.
Skin Protection	Wear impervious protective clothing, including boots, gloves, lab coat, apron or overalls, as appropriate, to prevent skin contact. Check with your safety supplier for the proper chemical-resistant gloves.
General Hygiene	Handle in accordance with good industrial hygiene and safety practice.
Environmental Precautions	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Engineering Measures	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.

09 PHYSICAL AND CHEMICAL PROPERTIES

	Black Ink	Blue Ink	Red Ink
Form	No data available	No data available	No data available
Colour	Black	Blue	Red
Odour	No data available	No data available	No data available
pH (Value)	4.5	5.5	6.5
Decomposition Temperature (°C)	No data available	No data available	No data available
Boiling point/boiling range (°C)	No data available	No data available	No data available
Melting Point/range (°C)	No data available	No data available	No data available
Flash Point (°C) [Closed cup]	No data available	No data available	No data available
Auto Ignition Temperature (°C)	No data available	No data available	No data available
Explosive Properties	No data available	No data available	No data available
Minimum Ignition Energy (mJ)	No data available	No data available	No data available
Oxidising Properties	No data available	No data available	No data available
Flammability (solid, gas)	No data available	No data available	No data available
Vapour Pressure (Pascal)	No data available	No data available	No data available
Vapour density	No data available	No data available	No data available
Density at 25 °C g/cm3 (± 0.02)	0.885	0.880	0.880
Specific Gravity	No data available	No data available	No data available

Solubility (Water)	No data available	No data available	No data available
Viscosity at 25 °C Cps (± 0.5)	3.7	3.8	3.3
Surface tension Dyne/cm ³ (± 5)	20	22	22
Evaporation rate	No data available	No data available	No data available
Partition coefficient: n-Octanol/ water	No data available	No data available	No data available
Acid Value (mgKOH/g)	No data available	No data available	No data available
Moisture (%)	No data available	No data available	No data available
Peroxide Number (mmol/kg)	No data available	No data available	No data available

10 STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage conditions
Reactivity	Not reactive under normal conditions.
Conditions to avoid	Keep out of reach of children. Keep away from heat, sparks and open flame. Keep away from contact with incompatible materials.
Materials to avoid	Strong oxidizing agents, strong acids, strong bases, alkali metals, halogens.
Hazardous Decomposition products	Carbon oxides, nitrogen oxides, thermal decomposition can lead to release of irritating and toxic gases and vapours.
Hazardous Polymerization	Will not occur

11 TOXICOLOGICAL INFORMATION

Toxicity	No harmful effects are expected if used correctly
Ingestion	May be harmful if swallowed
Inhalation	No harmful effects are expected if used correctly
Skin Contact	May cause an allergic skin reaction
Eye Contact	May cause serious eye damage
Long Term Exposure	No harmful effects are expected if used correctly
Germ cell mutagenicity	No harmful effects are expected if used correctly
Reproductive toxicity	No harmful effects are expected if used correctly
STOT – single exposure	No harmful effects are expected if used correctly
STOT – repeated exposure	No harmful effects are expected if used correctly
Aspiration toxicity	No harmful effects are expected if used correctly
Carcinogenicity	No harmful effects are expected if used correctly

12 ECOLOGICAL INFORMATION

Environmental Fate and Distribution	The ecological characteristics of this product have not been fully investigated. The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters. Do not discharge product into the environment
Persistence and Degradation	No data available
Toxicity	May be toxic to aquatic organisms.
Bio-accumulative potential	No data available
Mobility in soil	No data available
Effect on Effluent Treatment	Unlikely to affect biological treatment processes.
Other adverse effects	No data available

13 DISPOSAL CONSIDERATIONS

Regulatory Information	Recovered non-usable material may be regulated as a hazardous waste due to its ignitibility and/or its toxic characteristics. Disposal should be in accordance with local, state or national legislation. Local regulations may be more stringent than regional or national regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.
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14 TRANSPORT INFORMATION

Road/Rail (ADR/RID)	UN number: UN1263 UN proper shipping name: Paint Related Material Transport hazard class(es): 3 Packing group(s):II
Marine (IMDG)	UN number:UN1263 UN proper shipping name: Paint Related Material Transport hazard class(es): 3 Packing group(s):II
Air (ICAO/IATA)	UN number: UN1263 UN proper shipping name: Paint Related Material Transport hazard class(es): 3 Packing group(s): II

15 REGULATORY INFORMATION

The Safety Data Sheet is compiled according to the current European requirements. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance).

Chemical Safety Assessment – No information available.

16 OTHER INFORMATION

DISCLAIMER: The information provided in this Safety Data Sheet (SDS) is based upon the current level of information available with us for the purpose of specifying the requirements regarding environment, health and safety in conjunction with this product. It should not therefore be interpreted as a warranty for any specific characteristics of the product. It is the user's responsibility to take mentioned precautionary measures and ensure that this information is complete and sufficient for the use, processing and handling of the product. This SDS was prepared by ROYD Tool Group; however, the information is provided without any warranty, expressed or implied regarding its correctness. The SDS provided here relates only to this product and does not relate to its use in combination with any other product or material or in any process. The suitability of the product for any particular use needs to be investigated by the user; all risks of use, storage, handling, transportation and disposal of the product are therefore assumed by the user. ROYD Tool Group or the above-named supplier, or any of its subsidiaries do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with use, storage, handling, transportation and disposal of the product. Appropriate warnings and safe handling procedures should be provided to all handlers and users.