

Safety Data Sheet

MARSH®

Ink

M512



MARSH®

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Version	: GHS (CA) ENGLISH
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name	: M512
Product code	: Product code: M512, M512-4

1.2 Relevant identified uses of the substance or mixture and uses advised against

Material uses : Industrial applications: Ink for use in a drop-on-demand printing process.

1.3 Details of the supplier of the safety data sheet

Website: www.videojet.com

Email: FluidsSupport@videojet.com

Videojet Technologies Inc., 1500 Mittel Boulevard, Wood Dale, IL, 60191-1073 U.S.A

Tel: 1-800-843-3610 Fax: 1-800-582-1343

Videojet Technologies Canada Ltd., 7075 Financial Drive, Mississauga, Ontario, L5N 6V8

Phone 1-877-318-0563 Fax: 1-905-673-8725

1.4 Emergency telephone number

Medical 3E: (US) +1 866 519 4752
3E Code: 334466

Transporters CHEMTREC: (US) +1 800 424 9300
CHEMTREC Code: CCN 23846

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification

Skin Irrit. 2, H315	Causes skin irritation.
Asp. Tox. 1, H304	May be fatal if swallowed and enters airways.
Ingredients of unknown toxicity	: Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 2.2% Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 6.2% Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 6.2%
Ingredients of unknown ecotoxicity	: Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 0%.

2.2 Label elements

GHS label elements



Danger. Causes skin irritation. May be fatal if swallowed and enters airways. Toxic to aquatic life with long lasting effects. Wear protective gloves. Avoid release to the environment. IF SWALLOWED: Do NOT induce vomiting. Immediately call a POISON CENTER or physician. Collect spillage.

2.3 Other hazards

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

Substance/mixture	: Mixture		
Product/ingredient name	CAS #	%	GHS Classification
1) Distillates (petroleum), hydrotreated middle	64742-46-7	70 - <80	ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 2 ASPIRATION HAZARD - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2 ACUTE TOXICITY (inhalation) - Category 4
2) Distillates (petroleum), hydrodesulfurized middle	64742-80-9	2 - <5	SKIN CORROSION/IRRITATION - Category 2 ASPIRATION HAZARD - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : Causes skin irritation.

Ingestion : May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

:  Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

6.4 Reference to other sections

See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage**7.1 Precautions for safe handling****Protective measures**

:  Put on appropriate personal protective equipment (see Section 8). Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

:  Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

 Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters****Occupational exposure limits**

Product/ingredient name	Exposure limit values
1) Distillates (petroleum), hydrotreated middle	-

Recommended monitoring procedures

:  If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

8.2 Exposure controls**Appropriate engineering controls**

:  Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Hygiene measures

:  Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection	: <input checked="" type="checkbox"/> Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Hand protection	: <input checked="" type="checkbox"/> Recommended: EN374 J May be used (Short term exposure): Latex gloves. Nitrile gloves. Use gloves only once. Gloves should be replaced regularly and if there is any sign of damage to the glove material. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: organic vapor filter (Type A) Additional information: In situations where misting or flying may occur, use appropriate certified respirators. Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary.
Environmental exposure controls	: <input checked="" type="checkbox"/> 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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: Liquid.
Color	: Black.
Odor	: Not available.
Odor threshold	: Highest known value: 100 ppm. Weighted average: 100 ppm.
pH	: Not applicable.
Melting point/freezing point	: May start to solidify at the following temperature: 6 °C. Weighted average: 2 °C.
Initial boiling point and boiling range	: Lowest known value: 172 °C. Weighted average: 172 °C.
Flash point	: >120 °C.
Evaporation rate (butyl acetate = 1)	: Highest known value: <1.0. Weighted average: 0.0.
Flammability (solid, gas)	: Not applicable. (Liquid)
Upper/lower flammability or explosive limits	: Lowest known value: 1.0%. Highest known value: 19.0%.
Vapor pressure	: Highest known value: 0 mm Hg at 20°C. Weighted average: 0 mm Hg at 20°C.
Vapor density	: <1 (Air = 1)
Relative density (Water = 1)	: 0.88
Solubility(ies)	: Not available.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Lowest known value: 225 °C. Weighted average: 225 °C.
Decomposition temperature	: Thermally stable.
Viscosity	: Kinematic (40°C): 0.06 cm ² /s
Explosive properties	: Not applicable. Not classified.
Oxidizing properties	: Not applicable. Not classified.

9.2 Other information

Volatility (w/w) : 4 %.
VOC Volatility (w/w) : 4 %.

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

The product is stable.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

No specific data.

10.5 Incompatible materials

No specific data.

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), hydrotreated middle	LC50 Inhalation Dusts and mists	Rat - Male, Female	4.6 mg/l	4 hours
Distillates (petroleum), hydrodesulfurized middle	LC50 Inhalation Dusts and mists	Rat	4600 mg/m ³	4 hours
	LD50 Dermal	Rabbit	>4100 mg/kg	-
	LD50 Oral	Rat	7400 mg/kg	-

Conclusion/Summary : Not classified. No known significant effects or critical hazards.

Acute toxicity estimates

Route	ATE value
Inhalation (dusts and mists)	5.541 mg/l

Irritation/Corrosion

Conclusion/Summary

Skin : Causes skin irritation.
Eyes : Not classified. No known significant effects or critical hazards.
Respiratory : Not classified. No known significant effects or critical hazards.

Sensitization

Conclusion/Summary

Skin : Not classified. No known significant effects or critical hazards.
Respiratory : Not classified. No known significant effects or critical hazards.

Mutagenicity

Conclusion/Summary

: Not classified. No known significant effects or critical hazards.

Carcinogenicity

Conclusion/Summary

: Not classified. No known significant effects or critical hazards.

Reproductive toxicity

Conclusion/Summary

: Not classified. No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Not classified. No known significant effects or critical hazards.

Specific target organ toxicity (repeated exposure)

Not classified. No known significant effects or critical hazards.

Aspiration hazard

Product/ingredient name	Result
Distillates (petroleum), hydrotreated middle	ASPIRATION HAZARD - Category 1
Distillates (petroleum), hydrodesulfurized middle	ASPIRATION HAZARD - Category 1

Conclusion/Summary : May be fatal if swallowed and enters airways.

Potential chronic health effects, Other

Conclusion/Summary : No known significant effects or critical hazards.

SECTION 12: Ecological information**12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
Not available.			

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Not available.				
Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability	
Distillates (petroleum), hydrotreated middle	-	-	Not readily	
Distillates (petroleum), hydrodesulfurized middle	-	-	Not readily	

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Not available.			

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : None.

SECTION 14: Transport information

	UN	IMDG	IATA	Transport Canada
14.1 UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes.
Additional information	-	-	-	-

14.6 Special precautions for user

No special measures required.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Not available.

SECTION 15: Regulatory information

Tariff Code - harmonized system : 3215.11 Printing ink: Black.
 USA ...90.60
 EU ...90.90

Chemical Weapons Convention List Schedule I Chemicals	Chemical Weapons Convention List Schedule II Chemicals	Chemical Weapons Convention List Schedule III Chemicals
Not listed	Not listed	Not listed

SECTION 16: Other information

Revision comments :  Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 UN = United Nations

Procedure used to derive the classification

Classification	Justification
SKIN IRRITATION - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

Notice to reader

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