



DESIGN REPORT OF SAFETY DATA SHEET

No.: 220100320411099E

Date: Feb.21,2022

Name of the sample	Black Laser Marking Spray		
Applicant	Wuxi Huoban daily-use chemical science technology Co., Ltd.		
Supplier	Wuxi Huoban daily-use chemical science technology Co., Ltd.		
Composition of the sample	Ethanol: 44%; Butane: 23%; Molybdenum trioxide: 17%; Propane: 10%; Mica: 3%; Zinc phosphate: 2%; 2-Methyl-2,4-pentanediol: 0.5%; Poly(dimethylsiloxane): 0.5%		
Warranty of Design	GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS) Ninth revised edition		
Design Result of SDS please see next page.			
Designer	孙越越	Approver	For and on behalf of CCIC JIANGSU CO., LTD. 中国检验认证集团江苏有限公司 王峰

4 授权签字人 Authorized Signature (s)

Notes: This SDS is valid before the implementation of the Tenth revised edition GHS.



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Section 1 Product and Company Identification

> Product Identifier

Product Name	Black Laser Marking Spray
Synonyms	-
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable

> Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant Identified Uses	Please consult manufacturer.
Uses Advised Against	Please consult manufacturer.

> Details of the Supplier of the Safety Data Sheet

Applicant Name	Wuxi Huoban daily-use chemical science technology Co., Ltd.
Application Address	No.2 Shangdong Road, Shangdong Village, Xuxiake Town, Jiangyin City
Applicant Post Code	214407
Applicant Telephone	+86-510-86912011
Applicant Fax	+86-510-86531138
Applicant E-mail	wuyuanmei@partnergr.cn
Supplier Name	Wuxi Huoban daily-use chemical science technology Co., Ltd.
Supplier Address	No.2 Shangdong Road, Shangdong Village, Xuxiake Town, Jiangyin City
Supplier Post Code	214407
Supplier Telephone	+86-510-86912011
Supplier Fax	+86-510-86531138
Supplier E-mail	wuyuanmei@partnergr.cn

> Emergency Phone Number

Emergency Phone Number	+86-510-86912011
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Section 2 Hazards Identification

Hazard class and label elements of the product according to GHS (the ninth revised edition):

> GHS Hazard Class

Aerosols	Category 2
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Eye Damage/Irritation	Category 2A
Carcinogenicity	Category 2
Hazardous To The Aquatic Environment – Short-Term (Acute) Hazard	Category 3
Hazardous To The Aquatic Environment – Long-Term (Chronic) Hazard	Category 3

> GHS Label Elements

Pictogram



Signal Word

Warning

> Hazard Statements

H223+H229	Flammable aerosol Pressurized container: may burst if heated
H319	Causes serious eye irritation
H351	Suspected of causing cancer
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

> Precautionary Statements

Prevention

P203	Obtain,read and follow all safety instructions before use.
P210	Keep away from heat, hot surfaces, sparks,open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P264+P265	Wash hands and other contact area thoroughly after handling. Do not touch eyes.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

Response

P318	IF exposed or concerned,get medical advice.
P337+P317	If eye irritation persists:Get medical help.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage

P405	Store locked up.
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P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F
Disposal	
P501	Dispose of contents/container in accordance with local/regional/national/ international regulations.

Section 3 Composition/Information on Ingredients

Component	CAS No.	EC No.	Concentration (weight percent, %)
Ethanol	64-17-5	200-578-6	44
Butane	106-97-8	203-448-7	23
Molybdenum trioxide	1313-27-5	215-204-7	17
Propane	74-98-6	200-827-9	10
Mica	12001-26-2	215-479-3	3
Zinc phosphate	7779-90-0	231-944-3	2
2-Methyl-2,4-pentanediol	107-41-5	203-489-0	0.5
Poly(dimethylsiloxane)	9016-00-6	226-171-3	0.5

Section 4 First Aid Measures

> Description of First Aid Measures

General Advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Skin Contact	Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.
Protecting of First-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

> Most Important Symptoms and Effects, both Acute and Delayed

- 1 Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

> Indication of Any Immediate Medical Attention and Special Treatment Needed

- 1 Treat symptomatically.
- 2 Symptoms may be delayed.



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Section 5 Fire Fighting Measures

> Extinguishing Media

Suitable Extinguishing Media

Dry chemical, carbon dioxide or water spray.

Unsuitable

Extinguishing Media

Do not use a solid water stream as it may scatter or spread fire.

> Specific Hazards Arising from the Substance or Mixture

- 1 Flammable: will be easily ignited by heat, sparks or flames.
- 2 Will form explosive mixtures with air.
- 3 Fire exposed containers may vent contents through pressure relief valves thereby increasing fire intensity and/or vapour concentration.
- 4 Vapours may travel to source of ignition and flash back.
- 5 Containers may explode when heated.
- 6 Fire exposed containers may vent contents through pressure relief valves.
- 7 May expansion or decompose explosively when heated or involved in fire.

> Advice for Firefighters

- 1 As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
- 2 Fight fire from a safe distance, with adequate cover.
- 3 Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6 Accidental Release Measure

> Personal Precautions, Protective Equipment and Emergency Procedures

- 1 Avoid breathing vapors and contacting with skin and eye.
- 2 Beware of vapours accumulating to form explosive concentrations.
- 3 Vapours can accumulate in low areas.
- 4 Emergency personnel wear positive pressure self-contained breathing apparatus. Wear protective and anti-static clothing. Wear chemical impermeable gloves.
- 5 Ensure adequate ventilation. Remove all sources of ignition.
- 6 Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
- 7 Use personal protective equipment. Avoid breathing vapours, mist, gas or dust.

> Environmental Precautions

- 1 Prevent further leakage or spillage if safe to do so.



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- 2 Discharge into the environment must be avoided.

> Methods and Materials for Containment and Cleaning Up

- 1 Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
- 2 Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
- 3 Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

Section 7 Handling and Storage

> Precautions for Handling

- 1 Avoid inhalation of vapors.
- 2 Use only non-sparking tools.
- 3 To prevent fire caused by electrostatic discharge steam, equipment on all metal parts should be grounded.
- 4 Use explosion proof equipment.
- 5 Handling is performed in a well ventilated place.
- 6 Wear suitable protective equipment.
- 7 Avoid contact with skin and eyes.
- 8 Keep away from heat/sparks/open flames/ hot surfaces.
- 9 Take precautionary measures against static discharges.

> Precautions for Storage

- 1 Keep containers tightly closed.
- 2 Keep containers in a dry, cool and well-ventilated place.
- 3 Keep away from heat/sparks/open flames/ hot surfaces.
- 4 Store away from incompatible materials and foodstuff containers.

Section 8 Exposure Controls/Personal Protection

> Control Parameters

Occupational Exposure Limit Values

Component	Country/Region	Limit Value - Eight Hours		Limit Value - Short Term	
		ppm	mg/m ³	ppm	mg/m ³
Ethanol 64-17-5	USA - OSHA	1000	1900	-	-
	South Korea	1000	1900	-	-
	Ireland	-	-	1000	-



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	Germany (AGS)	500	960	1000	1920
	Denmark	1000	1900	2000	3800
	Australia	1000	1880	-	-
Butane 106-97-8	USA - NIOSH	800	1900	-	-
	South Korea	800	1900	-	-
	New Zealand	800	1900	-	-
	Germany (AGS)	1000	2400	4000	9600
	Denmark	500	1200	1000	2400
	Australia	800	1900	-	-
Propane 74-98-6	USA - OSHA	1000	1800	-	-
	Switzerland	1000	1800	4000	7200
	New Zealand	-	-	-	-
	Ireland	1000	-	-	-
	Germany (AGS)	1000	1800	4000	7200
	Denmark	1000	1800	2000	3600
	Canada - Québec	1000	1800	-	-
	Canada - Ontario	1000	-	-	-
	Belgium	1000	-	-	-
	Austria	1000	1800	2000	3600
Mica 12001-26-2	USA - OSHA	20 mppcf	-	-	-
	South Korea	-	3	-	-
	Latvia	-	4	-	-
	Ireland	-	10	-	-
	Australia	-	2.5	-	-
2-Methyl-2,4-pe ntanediol 107-41-5	USA - NIOSH	-	-	25	125
	South Korea	-	-	25	125
	Ireland	-	-	25	125
	Germany (DFG)	10	49	20	98
	Denmark	25	125	25	125
	Australia	-	-	25	121

Biological Limit Values

No information available

Monitoring Methods

- EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
- GBZ/T 160 Determination of toxic substances in workplace air (Series effective standard) and GBZ/T 300 Determination of toxic substances in workplace air (Series standard).



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> Engineering Controls

- 1 Ensure adequate ventilation, especially in confined areas.
- 2 Ensure that eyewash stations and safety showers are close to the workstation location.
- 3 Use explosion-proof electrical/ventilating/lighting/equipment.
- 4 Set up emergency exit and necessary risk-elimination area.

> Personal Protection Equipment

Eye Protection	Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US).
Hand Protection	Wear protective gloves (such as butyl rubber) , passing the tests according to EN 374(EU),US F739 or AS/NZS 2161.1 standard.
Respiratory protection	If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.
Skin and Body Protection	Wear fire/flamm resistant/retardant clothing and antistatic boots.

Section 9 Physical and Chemical Properties

Appearance: 340g aerosol	Odor: No information available
Odor Threshold: No information available	pH: No information available
Melting Point/Freezing Point (°C): No information available	Initial Boiling Point and Boiling Range (°C): No information available
Flash Point (°C)(Closed Cup): Not applicable	Evaporation Rate: Not applicable
Flammability: Flammable	Upper/lower explosive limits[% (v/v)]: Upper limit: No information available; Lower limit: No information available
Vapor Pressure (KPa): Not applicable	Relative Vapour Density(Air=1): Not applicable
Relative Density(Water=1): No information available	Solubility: No information available
n-Octanol/Water Partition Coefficient: No information available	Auto-Ignition Temperature(°C): No information available
Decomposition Temperature (°C): No information available	Kinematic Viscosity (mm ² /s): Not applicable
Particle characteristics: No information available	

Section 10 Stability and Reactivity

Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical Stability	Stable under proper operation and storage conditions.
Possibility of Hazardous Reactions	In contact with oxidants causes severe reactions, and may cause a fire or explosion. In contact with an open flame may cause a fire or explosion.



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Conditions to Avoid	Incompatible materials, heat, flame and spark.
Incompatible Materials	Oxidants, alkali metals, alkaline earth metals and aluminum. Oxidantss and halogen.
Hazardous	Under normal conditions of storage and use, hazardous decomposition products
Decomposition products	should not be produced.

Section 11 Toxicological Information

> Acute Toxicity

Component	CAS No.	LD ₅₀ (Oral)	LD ₅₀ (Dermal)	LC ₅₀ (Inhalation, 4h)
Molybdenum trioxide	1313-27-5	2689mg/kg(Rat)	> 2000mg/kg(Rat)	> 5.84mg/L(Rat)
2-Methyl-2,4-pentanediol	107-41-5	3700mg/kg(Rat)	No information available	No information available
Butane	106-97-8	No information available	No information available	658mg/L(Rat)
Ethanol	64-17-5	7060mg/kg(Rat)	No information available	39mg/L(Mouse)

> Skin Corrosion/Irritation

No information available

> Serious Eye Damage/Irritation

Causes serious eye irritation(Category 2A)

> Skin Sensitization

No information available

> Respiratory Sensitization

No information available

> Germ Cell Mutagenicity

No information available

> Carcinogenicity

ID	CAS No.	Component	IARC	NTP
1	64-17-5	Ethanol	Category 1	Not Listed
2	106-97-8	Butane	Not Listed	Not Listed
3	1313-27-5	Molybdenum trioxide	Not Listed	Not Listed
4	74-98-6	Propane	Not Listed	Not Listed



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5	12001-26-2	Mica	Not Listed	Not Listed
6	7779-90-0	Zinc phosphate	Not Listed	Not Listed
7	107-41-5	2-Methyl-2,4-pentanediol	Not Listed	Not Listed
8	9016-00-6	Poly(dimethylsiloxane)	Not Listed	Not Listed

> Reproductive Toxicity

No information available

> Reproductive Toxicity (Additional)

No information available

> STOT-Single Exposure

No information available

> STOT-Repeated Exposure

No information available

> Aspiration Hazard

No information available

Section 12 Ecological Information

> Acute Aquatic Toxicity

Component	CAS No.	Fish	Crustaceans	Algae
Molybdenum trioxide	1313-27-5	LC ₅₀ : 628mg/L (96h)(Fish)	No information available	No information available
2-Methyl-2,4-pentanediol	107-41-5	LC ₅₀ : 10000mg/L (96h)(Fish)	EC ₅₀ : 3250mg/L (48h)	ErC ₅₀ : >1000mg/L (72h)
Ethanol	64-17-5	LC ₅₀ : 11000mg/L (96h)(Fish)	EC ₅₀ : 9950mg/L (48h)	No information available
Zinc phosphate	7779-90-0	LC ₅₀ : 0.09mg/L (96h)(Fish)	No information available	No information available

> Chronic Aquatic Toxicity

Component	CAS No.	Fish	Crustaceans	Algae
2-Methyl-2,4-pentanediol	107-41-5	No information available	NOEC: 25mg/L	NOEC: 1000mg/L



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> Others

Persistence and
Degradability
Bioaccumulative
Potential
Mobility in Soil

No information available

No information available

No information available

Ethanol does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

Butane does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

Molybdenum trioxide does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

Propane does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

Mica does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

Zinc phosphate does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

2-Methyl-2,4-pentanediol does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

Poly(dimethylsiloxane) does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

Results of PBT and
vPvB Assessment

Section 13 Disposal Considerations

Waste Chemicals
Contaminated
Packaging
Disposal
Recommendations

Before disposal should refer to the relevant national and local laws and regulation. Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible. Refer to Waste chemicals and Contaminated packaging.

Section 14 Transport Information

Transporting Label



Marine pollutant

No

UN Number

1950

UN Proper Shipping
Name

AEROSOLS

Transport Hazard Class

2.1

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公司: 中国检验认证集团江苏有限公司

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Transport Subsidiary

NONE

Hazard Class

Packing Group

The packagings must conform to package instructions of UN number

Section 15 Regulatory Information

> International Chemical Inventory

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AICS	ENCS
Ethanol	√	√	√	√	√	√	√	√	√
Butane	√	√	√	√	√	√	√	√	√
Molybdenum trioxide	√	√	√	√	√	√	√	√	√
Propane	√	√	√	√	√	√	√	√	√
Mica	×	×	√	√	√	√	√	√	×
Zinc phosphate	√	√	√	√	√	√	√	√	√
2-Methyl-2,4-pentanediol	√	√	√	√	√	√	√	√	√
Poly(dimethylsiloxane)	×	×	√	√	√	√	√	√	√

[EINECS] European Inventory of Existing Commercial Chemical Substances.

[TSCA] United States Toxic Substances Control Act Inventory.

[DSL] Canadian Domestic Substances List.

[IECSC] China Inventory of Existing Chemical Substances.

[NZIoC] New Zealand Inventory of Chemicals.

[PICCS] Philippines Inventory of Chemicals and Chemical Substances.

[KECI] Existing and Evaluated Chemical Substances.

[AICS] Australia Inventory of Chemical Substances.

[ENCS] Existing And New Chemical Substances.

Note

"√" Indicates that the substance included in the regulations

"×" That no data or included in the regulations

Section 16 Additional Information

Creation Date Feb.21,2022

Revision Date Feb.21,2022

Reason for Revision -

> Disclaimer



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This Safety Data Sheet (SDS) was prepared according to UN GHS (the 9th revised edition). The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.



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Terms of the Using of the Report

1. The report is issued by CCIC according to the information of the chemicals and the information of its shipping provided by the applicant (shipper or his agent).
2. According to the demand of this SDS, CCIC requires the applicant to provide true and exact sample and data.
3. Information from applicant is the key of this SDS, so CCIC will not respond for the wrong of applicant.
4. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested.
5. This report will be effective only after it is signed by the inspector, approver and stamped by CCIC.
6. CCIC guarantees the objectivity and fairness of this report, and carries out confidentiality obligations on business secrets such as business information, technical documents and so on.
7. The partly duplicating of this report is prohibited without the written approver of CCIC.
8. The report is invalid when anything of the following happens-illegal transfer, embezzlement, imposture, modification or tampering in any media form.

