

Safety Data Sheet

1 Identification

| Product identifier

Product Name	Water-based Paint
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable

| Recommended use of the product and restrictions on use

Relevant identified uses	Please consult manufacturer.
Uses advised against	Please consult manufacturer.

| Details of the supplier

Name of the company	Anhui KRM New Material Sci & Tech Co., Ltd.
Address of the company	The Intersection of Fangxing Avenue and Wanfoshan Road, Economic Technological Development Area, Feixi, Hefei, Anhui, China.
Post code	230093
Telephone number	+86-0551-62570225
Fax number	—
E-mail address	info@krm-paint.com

| Emergency phone number

Emergency phone number	+86-0551-62570225
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2 Hazard identification

| Hazard classification according to GHS

Flammable Liquids	Category 2
Acute Toxicity – Oral	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Irritation	Category 1
Acute Toxicity – Inhalation	Category 4
Specific target organ toxicity, single exposure; Respiratory tract irritation	Category 3

| GHS Label elements

Hazard pictograms	
Signal word	Danger

| Hazard statements

H225	Highly flammable liquid and vapour
H302	Harmful if swallowed
H315	Causes skin irritation

H318	Causes serious eye damage
H332	Harmful if inhaled
H335	May cause respiratory irritation

| Precautionary statements

◆ Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting] equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing gas/mist/vapour/spray.
P264	Wash hands and other parts of the body (if related) thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or with adequate ventilation.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P264+P265	Wash hands and other parts of the body (if related) thoroughly after handling. Do not touch eyes.

◆ Response

P317	Get medical help.
P319	Get medical help if you feel unwell.
P321	Specific treatment (see related instructions on the label).
P330	Rinse mouth.
P301+P317	IF SWALLOWED: Get medical help.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P332+P317	If skin irritation occurs: Get medical help.
P362+P364	Take off contaminated clothing and wash it before reuse.
P370+P378	Small fire: dry chemical, CO ₂ or alcohol-resistant foam; Large fire: alcohol-resistant foam; Fire involving tanks, rail tank cars or highway tanks: Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower].
P305+P354+P338	IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

◆ Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.

◆ Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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Hazard description

Physical and chemical hazards

	Highly flammable liquids, its vapor and air mixture can form explosive mixture.
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Health hazards

Inhaled	Inhalation of vapours, especially for prolonged periods, may produce respiratory irritation and occasionally, distress. Inhalation of vapours or aerosols (mists, fumes), generated by the product during the course of normal handling, may produce severely toxic effects; these may be harmful.
Ingestion	Accidental ingestion of the product may be harmful.
Skin Contact	The product can cause skin irritation following direct contact with the skin.
Eye	The product can produce severe chemical burns to the eye following direct contact.

Environmental hazards

	Please refer to 12th chapter of SDS.
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3 Composition/information on ingredients

Substance/mixture

	Mixture
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Component	CAS No.	EC No.	Concentration (wt, %)
2-Propenoic acid, homopolymer	9003-01-4	618-347-7	20
1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde	9003-08-1	618-354-5	10
2-butoxyethanol	111-76-2	203-905-0	20
Ethanol	64-17-5	200-578-6	10
Water	7732-18-5	231-791-2	40

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 soap and water for at least 15 minutes and consult a physician if feel uncomfortable.
Ingestion	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/effects, acute and delayed

1	Substance accumulation, in the human body, may occur and may cause some concern following repeated or
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	long-term occupational exposure.
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| Indication of any immediate medical attention and special treatment needed

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

5 Fire-fighting measures

| Extinguishing media

Suitable extinguishing media	Small fire: dry chemical, CO ₂ or alcohol-resistant foam; Large fire: alcohol-resistant foam; Fire involving tanks, rail tank cars or highway tanks: Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles. Cool containers with flooding quantities of water until well after fire is out.
Unsuitable extinguishing media	Use of water spray when fighting fire may be inefficient.

| Specific hazards arising from the substance or mixture

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| 1 | Will form explosive mixtures with air. |
| 2 | Fire exposed containers may vent contents through pressure relief valves thereby increasing fire intensity and/or vapour concentration. |
| 3 | Vapours may travel to source of ignition and flash back. |
| 4 | Liquid and vapour are flammable. |
| 5 | Development of hazardous combustion gases or vapor possible in the event of fire. |
| 6 | May expand or decompose explosively when heated or involved in fire. |

| Special protective equipment and precautions for fire-fighters

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| 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. |

6 Accidental release measures

| Personal precautions, protective equipment and emergency procedures

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| 1 | Avoid breathing vapours 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 | Use personal protective equipment, do not breathe gas/mist/vapour/spray. |
| 6 | Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges. |
| 7 | Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |

| Environmental precautions

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| 1 | Prevent further leakage or spillage if safe to do so. |
| 2 | Discharge into the environment must be avoided. |

| Methods and materials for containment and cleaning up

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| 1 | It is recommended that emergency personnel wear positive pressure self-contained breathing apparatus and wear anti-static clothing. |
| 2 | In case of small amount of spillage, use clean non sparking tools to collect absorption materials. |

3	In case of large amount of spillage, construct cofferdam or dig a hole to collect the spillage. Use foam cover to reduce evaporation. Water spray mist can reduce evaporation, but can not reduce the flammability of the leakage in the restricted space.
4	Collect absorbent material using a clean, non-sparking tool.
5	Cover with anti-solvent foam to reduce evaporation.
6	Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.
7	Water spray reduces evaporation but does not reduce the flammability of spills in confined spaces.
8	Cut off the source of the leak as much as possible.
9	Keep leaks in a ventilated place.
10	Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
11	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
12	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container.
13	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

7 Handling and storage

| Precautions for safe 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.

| Conditions for safe storage, including any incompatibilities

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.

8 Exposure controls/personal protection

| Control parameters

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m ³	ppm	mg/m ³
2-Propenoic acid, homopolymer	Germany (DFG)	-	0.05	-	0.05
2-butoxyethanol	Australia	20	96.9	50	242
	Canada - Ontario	20	-	-	-
	Canada - Québec	20	-	-	-
	European Union	20	98	50	246
	France	10	49	50	246

	Germany (AGS)	10	49	20	98
Ethanol	Australia	1000	1880	-	-
	Canada - Ontario	-	-	1000	-
	Canada - Québec	-	-	1000	-
	France	1000	1900	5000	9500
	Germany (AGS)	200	380	800	1520
	Germany (DFG)	200	380	800	1520

◆ Biological limit values

Biological limit values	No relevant regulations
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◆ Monitoring methods

1	EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2	GBZ/T 300 series standard Determination of toxic substances in workplace air.

| 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

General requirement	    
Eye protection	Must wear appropriate anti-corrosion goggles.
Hand protection	Must wear acid and alkali resistant chemical protective gloves.
Respiratory protection	Must wear appropriate personal respiratory protective equipment.
Skin and body protection	Must wear anti static chemical protective clothing and anti static shoes.

9 Physical and chemical properties

| Physical and chemical properties

Physical state	Liquid
Colour	No information available
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)	>35
Flash point(Closed cup,°C)	17
Evaporation rate	No information available
Flammability	No information available
Upper/lower explosive limits[% (v/v)]	Upper limit: No information available; Lower limit: No information available

Vapor pressure	No information available
Relative vapour density(Air = 1)	No information available
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	No information available
Particle characteristics	Not applicable

10 Stability and reactivity

| 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 active metals (alkali metals, Na, Ca etc.) causes a reaction and release hydrogen.
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	Oxidants, alkali metals, alkaline earth metals and aluminum. Alkali, sodium, calcium, and other active metal, halogen, metal oxide, nonmetal oxide, acyl halide and metal phosphide.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

| Acute toxicity

Component	LD ₅₀ (oral)	LD ₅₀ (dermal)	LC ₅₀ (inhalation,4h)
2-butoxyethanol	470mg/kg(Rat)	> 2000mg/kg(Rat)	2.174mg/L(Rat)
1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde	> 10000mg/kg(Rat)	> 10000mg/kg(Rabbit)	No information available
2-Propenoic acid, homopolymer	2500mg/kg(Rat)	No information available	No information available
Ethanol	7060mg/kg(Rat)	No information available	39mg/L(Mouse)

| Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP
2-Propenoic acid, homopolymer	Category 3	Not Listed
1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde	Not Listed	Not Listed
2-butoxyethanol	Category 3	Not Listed
Ethanol	Category 1(Remark 1)	Not Listed

Water	Not Listed	Not Listed
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Remark 1: for alcoholic beverages only

| Others

Water-based Paint	
Skin corrosion/irritation	Causes skin irritation(Category 2)
Serious eye damage/irritation	Causes serious eye damage(Category 1)
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	May cause respiratory irritation(Category 3)
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met

12 Ecological information

| Acute aquatic toxicity

Component	Fish	Crustaceans	Algae
2-butoxyethanol	LC ₅₀ : 1370mg/L (96h)(Fish)	EC ₅₀ : >1000mg/L (48h)(Crustaceans)	ErC ₅₀ : >1000mg/L (72h)(Algae)
2-Propenoic acid, homopolymer	LC ₅₀ : 27mg/L (96h)(Fish)	EC ₅₀ : 47~95mg/L (48h)(Crustaceans)	ErC ₅₀ : 0.13mg/L (72h)(Algae)
Ethanol	LC ₅₀ : 11200mg/L (96h)(Fish)	EC ₅₀ : 9950mg/L (48h)(Crustaceans)	No information available

| Chronic aquatic toxicity

Component	Fish	Crustaceans	Algae
2-butoxyethanol	No information available	NOEC: >100mg/L(Crustaceans)	NOEC: 130mg/L(Algae)

| Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
Ethanol	Low(Half-life = 2.17 days)	Low(Half-life = 5.08 days)

| Bioaccumulative potential

Component	Bioaccumulative potential	Comments
Ethanol	Low	Log Kow=-0.31

| Mobility in soil

Component	Mobility in soil	Soil Organic Carbon-Water Partitioning Coefficient (Koc)
Ethanol	High	1

| Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
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2-Propenoic acid, homopolymer	Insufficient information, temporarily unable to evaluate
1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde	Insufficient information, temporarily unable to evaluate
2-butoxyethanol	Not PBT/vPvB
Ethanol	Not PBT/vPvB
Water	Insufficient information, temporarily unable to evaluate

13 Disposal considerations

| Disposal considerations

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

14 Transport information

| Label and Mark

Transporting Label	
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| IMDG-CODE

UN number	1263
UN proper shipping name	PAINT
Transport hazard class	3
Transport subsidiary hazard class	None
Packing group	II
Marine pollutant (Yes or no)	No

| IATA-DGR

UN number	1263
UN proper shipping name	PAINT
Transport hazard class	3
Transport subsidiary hazard class	None
Packing group	II

| UN-ADR

UN number	1263
UN proper shipping name	PAINT
Transport hazard class	3
Transport subsidiary hazard class	None

15 Regulatory information

| International chemical inventory

Component	EC inventory	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AIIC	ENCS
2-Propenoic acid, homopolymer	x	√	√	√	√	√	√	√	√
1,3,5-Triazine-2,4,6-triamine, polymer with formaldehyde	x	√	√	√	√	√	√	√	√
2-butoxyethanol	√	√	√	√	√	√	√	√	√
Ethanol	√	√	√	√	√	√	√	√	√
Water	√	√	√	√	√	√	√	√	√

[EC inventory] 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] Korea Existing Chemicals Inventory

[AIIC] Australian. Inventory of Industrial Chemical (AIIC)

[ENCS] Japan Inventory of Existing & New Chemical Substances

Note:

“√” Indicates that the substance included in the regulations.

“x” No data or not included in the regulations.

16 Other information

| Information on revision

Creation Date	2024/09/13
Revision Date	2024/09/13
Reason for revision	-

| Reference

- [1] IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>.
- [2] IARC, website: <http://www.iarc.fr/>.
- [3] OECD: The Global Portal to Information on Chemical Substances, website: <https://www.chemportal.org/chemportal/>.
- [4] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.
- [5] NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.
- [6] EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.
- [7] U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.
- [8] Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

| Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG-CODE	International Maritime Dangerous Goods CODE
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists

LC ₅₀	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD ₅₀	Lethal Dose 50%	NTP	National Toxicology Program
EC ₅₀	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC _x	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P _{OW}	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment
ED	Endocrine disruptor		

| Disclaimer

This Safety Data Sheet (SDS) was prepared according to UN GHS (the 10th 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.