

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

1) Trade name	WD-40
2) Product Use	
Application of the substance	Metal (iron) rust prevention, metal friction surface lubrication
Restriction of the substance	Don't use for other purposes.
3) Details of the supplier of the safety data sheet	
Manufacture/supplier	BEX-INTER CORPORATION CO., LTD. 7-15, Baumoe-ro 27-gil, Seocho-gu, Seoul, KOREA
Emergency telephone/fax	TEL: +82-2-571-4040, FAX: +82-2-575-1336
Department	Tech & Production Dept.

## SECTION 2. HAZARDS IDENTIFICATION

1) CLASSIFICATION	Gases under Pressure : Liquefied gas Aerosols : Category 1 Aspiration Toxicity : Category 1
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2) LABEL  
Symbol



Signal Word	Danger	
Hazard Statements	H220 H222 H229 H280 H304	Extremely flammable gas Extremely flammable aerosol Pressurized container: may burst if heated Contains gas under pressure; may explode if heated May be fatal if swallowed and enters airways
Precautionary Statements		
Prevention	P201 P202 P210  P211 P251 P270 P280	(Obsolete) Obtain special instructions before use. (Obsolete) Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surface, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection
Response	P301+P310 P331 P303+P361+P353  P370+P376 P370+P378 P377 P381	(Obsolete) IF SWALLOWED: Immediately call a POISON CENTER/doctor Do NOT induce vomiting. IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower]. In case of fire: Stop leak if safe to do so. In case of fire: Use ... to extinguish. Leaking gas fire: Do not extinguish, unless leak can be stopped safely. In case of leakage, eliminate all ignition sources.
Storage	P405 P403+P233 P410+P412	Store locked up. Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

Disposal

P501

Dispose of contents/container to the authorized operator in accordance with local/regional/national/international regulation (to be specified).

## 3) OTHER HAZARD INFORMATION

Name	NFPA Code	HEALTH HAZARD	FIRE HAZARD	REACTIVITY
1) Distillates (petroleum), hydrotreated light		1	2	0
2) Base Oil		1	1	0
3) Propane		2	4	0
4) n-Butane		1	4	0
5) Alkane(C=1~5)oic acid Substituted Alkyl(C=2~4)Alkyl(C=6~10) ester Alkali metal salt		-	-	-
6) Fatty acids, (C=15~20)-unsatd., dimers		-	-	-
7) Alkyl(C=1~3) alkyl(C=1~5) Carbomonocyclic alcohol		-	-	-

## SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Name	Other Name	CAS#	Concentration (%)
1) Distillates (petroleum), hydrotreated light	Distillate fuel oils, light	64742-47-8	36 ~ 42
2) Base Oil	-	64742-54-7	9 ~ 15
3) Propane	Dimethylmethane	74-98-6	8 ~ 12
4) Butane	Butane	106-97-8	28 ~ 32
5) Alkane(C=1~5)oic acid Substituted Alkyl(C=2~4)Alkyl(C=6~10) ester Alkali metal salt	-	Trade Secret	1 ~ 3
6) Fatty acids, (C=15~20)-unsatd., dimers	-	Trade Secret	1 ~ 3
7) Alkyl(C=1~3) alkyl(C=1~5) Carbomonocyclic alcohol	-	Trade Secret	0.01 ~ 1

## SECTION 4. FIRST AID MEASURES

- 1) EYE CONTACT  
Flush thoroughly with water.  
Remove contact lenses if present after the first 5 minutes and continue flushing for several more minutes.  
Get medical attention immediately.
- 2) SKIN CONTACT  
Wash with soap and water.  
If irritation develops and persists, get medical attention.
- 3) INHALATION  
If irritation is experienced, move to fresh air.  
Get medical attention if irritation or other symptoms develop and persist.
- 4) INGESTION  
Aspiration Hazard.  
DO NOT induce vomiting.  
Call physician, poison control center or the WD-40 Safety Hotline at 080-200-4040 immediately.
- 5) NOTE TO PHYSICIAN  
There is no special antidote, so take appropriate treatment according to symptoms.  
Consider esophageal endoscopy when ingested.

## SECTION 5. FIRE FIGHTING MEASURES

- 1) Extinguishing Media

Appropriate Extinguishing Media	Use water fog, dry chemical, carbon dioxide or foam.
Inappropriate Extinguishing Media	Do not use water jet or flooding amounts of water. Burning product will float on the surface and spread fire.
In case of a large fire	Use regular extinguishing media or spray large quantities with fine water spray.

2) Specific hazards during firefighting

Pyrolysate	Carbon oxide, NOx, SOx
Flame and Explosion Risk	Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Flammable liquid and vapors. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back. A vapor and air mixture can create an explosion hazard in confined spaces.

3) Special protective equipment for firefighters

In the event of fire and/or explosion do not breathe fumes.  
Wear self-contained breathing apparatus and protective suit.  
No unprotected exposed skin areas.

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

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1) PROTECTIVE MEASURES

Eliminate all sources of ignition and ventilate area.  
Wear appropriate protective clothing (see Section 8).

2) ENVIRONMENTAL PRECAUTIONS

Report spills to authorities as required.

3) METHOD AND MATERIAL FOR CONTAINMENT AND CLEAN

Contain and collect liquid with an inert absorbent and place in a container for disposal.  
Clean spill area thoroughly.  
Report spills to authorities as required.

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## SECTION 7. HANDLING AND STORAGE

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1) PRECAUTIONS FOR SAFE HANDLING

Avoid contact with eyes.  
Avoid prolonged contact with skin.  
Avoid breathing vapors or mists.  
Use with adequate ventilation.  
Keep away from heat, sparks, hot surfaces and open flames.  
Wash thoroughly with soap and water after handling.  
Keep containers closed when not in use.  
Keep out of the reach of children.

2) CONDITIONS FOR SAFE STORAGE

Store in a cool, well-ventilated area, away from incompatible materials.  
NFPA 30 Class II Liquid.

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## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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1) EXPOSURE LIMIT VALUES

1) Aliphatic Hydrocarbon	
DOMESTIC REGULATION	Not determined
ACGIH	Not determined
BIOLOGICAL LIMITS	Not determined
Other Exposure Criteria	1200 mg/m <sup>3</sup> TWA (manufacturer recommended)

2) Petroleum Base Oil

DOMESTIC REGULATION	Not determined
ACGIH	5 mg/m <sup>3</sup> TWA (inhalable) ACGIH TLV (as mineral oil) 5 mg/m <sup>3</sup> TWA OSHA PEL (as oil mist, mineral)
BIOLOGICAL LIMITS	Not determined

3) Non-Hazardous Ingredients	
DOMESTIC REGULATION	Not determined
ACGIH	Not determined
BIOLOGICAL LIMITS	Not determined

## 2) ENGINEERING CONTROLS

Use in a well-ventilated area.

Use adequate general and local exhaust ventilation to maintain exposure levels below that occupational exposure limits.

## 3) PERSONAL PROTECTION

Respiratory Protection	If the occupational exposure limits are exceeded, wear a NIOSH approved respirator. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.
Eye Protection	Safety goggles recommended where eye contact is possible.
Hand Protection	Impervious gloves Gloves must be inspected prior to use. Replace when worn.
Skin and Body Protection	Wear chemical resistant gloves.
Protective measures	Wash with soap and water after handling.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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1) Appearance	Light amber liquid
2) Odour	Mild petroleum odor
3) Odour threshold	Not established
4) pH-value	Not established
5) Melting point	Not established
6) Initial boiling point/boiling range	147°C~663°C
7) Flash point	79.5°C
8) Evaporation rate	Not established
9) Flammability (Solid, Gas)	Not applicable
10) Ignition or Explosion limits	5.0 / 0.6
11) Vapour pressure	0.023kPa at 20°C
12) Solubility in water	Insoluble in water
13) Vapour density	6.2
14) Specific gravity (25°C)	Not established
15) N-Octanol/Water Distribution Coeff.	Not established
16) Self ignition temperature	239°C
17) Decomposition temperature	Not established
18) Viscosity	3.72mm <sup>2</sup> /s at 40°C
19) Molecular weight	No data for compound

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## SECTION 10. STABILITY AND REACTIVITY

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1) Chemical stability	Stable under normal storage and handling conditions.
2) Possibility of hazardous reactions	Hazardous polymerization will not occur.
3) Conditions to avoid	Avoid heat, sparks, flames and other sources of ignition.
4) Incompatible materials to avoid	Strong oxidizing agents.
5) Hazardous decomposition products	Carbon monoxide and carbon dioxide, smoke fumes, unburned hydrocarbons.

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## SECTION 11. TOXICOLOGICAL INFORMATION

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※ Product toxicity data is not exist. Each ingredient data is filled as substitute.

### 1) INFORMATION ON THE LIKELY ROUTES OF EXPOSURE

Respiratory	Irritation
Ingestion	This product has low oral toxicity. If swallowed, this material may cause irritation of the mouth, throat and esophagus. Swallowing may cause gastrointestinal irritation, nausea, vomiting, diarrhea, dizziness, drowsiness and other central nervous system effects. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death.
Skin	Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis.
Eye	Contact may be irritating to eyes. May cause redness, stinging, swelling and tearing.
Chronic Effects	None expected.
Medical Conditions Aggravated by Exposure	Preexisting eye, skin and respiratory conditions may be aggravated by exposure.

### 2) HEALTH HAZARDS

\* Assort component 1, 2, 3 as written below because chemical names are too long.

Component 1.	Distillates (petroleum), hydrotreated light
Component 2.	Base Oils
Component 3.	Propane
Component 4.	n-Butane
Component 5.	Alkane(C=1~5)ic acid Substituted Alkyl(C=2~4)Alkyl(C=6~10) ester Alkali metal salt
Component 6.	Fatty acids, (C=15~20)-unsatd., dimers
Component 7.	Alkyl(C=1~3) alkyl(C=1~5) Carbomonocyclic alcohol

Acute toxicity	Ingestion	ATEmix	LD50 > 5,210 mg/kg
	Skin	ATEmix	LD50 > 2,000 mg/kg
	Inhalation	ATEmix	LC50 > 658 mg/kg(Mist)
Skin corrosive or irritation	Prolonged Prolonged and/or repeated contact may produce mild irritation and defatting w defatting with possible dermatitis.		
Serious eye damage or irritation	Contact may be irritating to eyes. May cause redness and tearing.		
Respiratory sensitization	Not determined		
Carcinogenicity	None of the components are listed as a caecinogen or suspect carcinogen by IARC, NTP, ACGIH or OSHA		
Mutagenicity	Not determined		

Reproductive toxicity	None of the components is considered a reproductive hazard.
Target organ toxicity	
– Single exposure	Not determined
– Repeated exposure	Not determined
Aspiration toxicity	Category 1

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## SECTION 12. ECOLOGICAL INFORMATION

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1) ECOTOXICITY	No specific aquatic toxicity data is currently available; however components of this product are not expected to be harmful to aquatic organisms
2) PERSISTENCE AND DEGRADABILITY	Components are expected to be readily biodegradable.
3) BIOACCUMULATION	
Bioaccumulation	Bioaccumulation is not expected based on an assessment of the ingredients.
Biodegradation	Not determined
4) MOBILITY	No data available.
5) OTHER ECOLOGICAL INFORMATION	None Known

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## SECTION 13. DISPOSAL CONSIDERATIONS

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- Waste treatment methods  
If this product becomes a waste, it would be expected to meet the criteria of a RCRA ignitable hazardous waste (D001). However, it is the responsibility of the generator to determine at the time of disposal the proper classification and method of disposal. Dispose in accordance with federal, state, and local regulations.
- Additional information  
Disposal must be made according to official regulations.

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## SECTION 14. TRANSPORT INFORMATION

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1) UN NUMBER (UN NO.)	UN 1950
2) PROPER SHIPPING NAME	AEROSOLS
3) HAZARD CLASS	2.1
4) PACKING GROUP	Not determined
5) MARINE POLLUTANT	Applicable
6) EMS NUMBER	F-D, S-U

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## SECTION 15. REGULATORY INFORMATION

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- KOREA OCCUPATION SAFETY AND HEALTH ACTS  
Not applicable
- TCCA  
Not applicable
- DANGEROUS GOODS SAFETY MANAGEMENT ACTS  
Not applicable
- WASTE MANAGEMENT ACTS  
Not determined

5) OTHER NATIONAL AND FOREIGN LAW

National law

Not determined

Foreign law

Not determined

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## SECTION 16. OTHER INFORMATION

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1) SOURCE OF DATA

Buhmwoo Institute of Technology Research(Raw materials MSDS of supplier)  
Korea Occupational Safety and Health Agency  
Occupation Safety and Health Acts  
Wastes Control Act (ACT NO.4363)  
Chemicals Control Act  
Safety Control of Dangerous Substances Act

2) FIRST ISSUE DATE

Jun. 29, 2006

3) REVISION NO./FINAL REVISION DATE

Revision No.

29

Revision Date

January. 13, 2023

4) OTHER INFORMATION

Comments listed in this MSDS is written based on our suppliers of raw materials and materials, and industrial Safety and Health Act to be up-to-date information, at this point I believe. However, the risk of hazardous substances is not written to all the risks of hazardous substances exist there may be unknown hazards of all chemicals in this material may be prescribed. Precautions carefully review this information, and our customers and potential customers, he should take a look, and need to check conformance with applicable laws and regulations relating to the use and disposal of this product. Be created only for the purpose of describing the product operator of health, safety and environmental requirements to ensure that the specific nature of the product, this material should be understood. Of this product in the actual our control, as it is impossible to take any responsibility for the result of the use of this material, can not be assumed that, in the final conformity assessment, please understand that only the user is responsible. Normal handling this material, so if special handling, use, and usage suitable for establishing safety measures must be. This material can be revised based on the new information, please see the instruction manual attached to the packaging of this product before using the product specification (the catalog) and also.