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【MATERIAL SAFETY DATA SHEET】

1. Chemical Product and Company Identification

A. Trade Name : WD-40 Aerosol

B. Product Use : Lubricant, Penetrant, Drives Out
Moisture, Removes and Protects Surfaces from Corrosion

C. Manufacturer : WD-40 Company
Address: 1061 Cudahy Place (92110)
P.O. Box 80607
San Diego, California, USA
Telephone: 92138 –0607

Emergency only : 1-888-324-7596 (PROSAR)
Company: BEX INTERCORPORATION
Address: 70-3, YANGJAE-DONG, SEOCHO-KU, SEOUL, KOREA
02-571-4040

2. Hazards Identification

A. Hazard • Risk classification: : Flammable Aerosol Category 1
Aspiration Toxicity Category 1

B.GHS label element, including precautionary statements :

:

Signal word :
DANGER

Hazard statement
H222 Extremely Flammable Aerosol.
H304 May be fatal if swallowed and enters airways.

Precautionary staement :
P210 Keep away from heat, sparks, open flames, hot surfaces – No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.

Response : P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or physician.
P331 Do NOT induce vomiting.

Storage : P404 Store in a container.
P405 Store locked up.

Disposal : P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 40°C
P501 Dispose of contents and container in accordance with local and national regulations.

C. Other hazard which do not result in classification : No data available

3. Composition/Information on Ingredients

Chemical (Kor)	Chemical (Eng)	CAS No.	Weight Percent (%)
Hydro treated light distillate	Aliphatic Hydrocarbon	64742-47-8	30-40
Solvent-dewaxed heavy paraffinic distillate	Petroleum Base Oil	64742-65-0	9-15
Iso-butane		75-28-5	8~12
n-butane		106-97-8	28~32
Non-hazardous ingredients		-	0.1-6

4. First Aid Measures

A. 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 if irritation persists

B. Skin Contact: : Wash with soap and water. If irritation develops and persists, get medical attention.

C. Inhalation (Breathing): : If irritation is experienced, move to fresh air. Get medical attention if irritation or other symptoms develop and persist.

D. Ingestion (Swallowed): : Aspiration Hazard. DO NOT induce vomiting. Immediate medical attention is required for ingestion.

E. Signs and Symptoms of Exposure : Harmful or fatal is swallowed. If swallowed, may be aspirated and cause lung damage. May cause eye and respiratory tract irritation. Inhalation may cause coughing, headache and dizziness. Skin contact may cause drying of the skin. Immediate medical attention is required for ingestion.

5. Fire Fighting Measures

A. Extinguishing Media

Proper way : Use water fog, dry chemical, carbon dioxide or foam.

Improper way : Do not use water jet or flooding amounts of water

B. Specific hazards arising from the chemical : Burning product will float on the surface and spread fire. Combustion will produce oxides of carbon and hydrocarbons.

C. Special Fire Fighting Procedures : Firefighters should always wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire-exposed containers with water. Use shielding to protect against bursting containers.

D. Other(Unusual Fire and Explosion Hazards) : Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flash back.

6. Accidental Release Measures

A. Personal precautions, and protection : Wear appropriate protective clothing (see Section 8).

B. Precautions to protect the : Avoid release to the ecvironment. Report spills and releases as required by local regulations.

environment.

C. Methods of elimination and ventilation : Eliminate all sources of ignition and ventilate area. Leaking cans should be placed in a plastic bag or open pail until the pressure has dissipated. 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.

7. Handling and Storage

A. Handling : Avoid contact with eyes. Avoid prolonged contact with skin. Avoid breathing vapors or aerosols. Use only with adequate ventilation. Keep away from heat, sparks, pilot lights, hot surfaces and open flames. Unplug electrical tools, motors and appliances before spraying or bringing the can near any source of electricity. Electricity can burn a hole in the can and cause contents to burst into flames. To avoid serious burn injury, do not let the can touch battery terminals, electrical connections on motors or appliances or any other source of electricity. Wash thoroughly with soap and water after handling. Keep containers closed when not in use. Keep out of the reach of children. Do not puncture, crush or incinerate containers, even when empty.

B. Storage : Store in a cool, well-ventilated area, away from incompatible materials Do not store above 120℉ or in direct sunlight. U.F.C (NFPA 30B) Level 3 Aerosol. Store away from oxidizers.

8. Exposure Controls/Personal Protection

A Expose standard of chemical and biologic.

Domestic regulation (Korea) :

Chemical	Expose standard
Hydro treated light distillate	TWA 200 mg/m^3
n-butane	TWA 800 ppm, 1,900 mg/m^3

Forign regulation (OEL) :

Chemical	Expose standard
Hydro treated light distillate	TWA 1,200 mg/m^3
Solvent-dewaxed heavy paraffinic distillate	TWA 5 mg/m^3 STEL ACGIH TLV 10 mg/m^3 TWA OSHA PEL 5 mg/m^3
Petroleum gases, liquefied	TWA(OSHA/ACGIH) 800 ppm STEL(ACGIH) 800 ppm

B. Exposure management : No data available

C. appropiate engineering controls : Use in a well-ventilated area.

D.Individual protection measure, such as personal protective equipment(PPE)

Respiratory Protection : Use in a well-ventilated area, not necessary

Eye/Face Protection : Avoid eye contact. Always spray away from your face

Skin Protection : Avoid prolonged skin contact. Chemical resistant gloves recommended for operations where skin contact is likely

sanitary measures	:	No data available
E. For Bulk Processing or Workplace Use the Following Controls are Recommended		
Appropiate engineering controls	:	Use adequate general and local exhaust ventilation to maintain exposure levels below that occupational exposure limits.
Personal protection		
Eye Protection	:	Safety goggles recommended where eye contact is possible.
Skin Protection	:	Wear chemical resistant gloves.
Respiratory Protection	:	None required if ventilation is adequate. 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.
Work/Hygiene Practices	:	Wash with soap and water after handling.

9. Physical and Chemical Properties

A. Appearance		
Physical state	**:**	Liquid
Colour	**:**	Amber light
B. Odour	**:**	Light smell
C. Odour threshold	**:**	No data available
D. pH	**:**	Not applicable
E. Melting point/freezing point	**:**	No data available
F. Initial boiling point and boiling range	**:**	161-198℃
G. Flash point	**:**	-60 ℃ (Tag open cup test-Concentration)No data available
H.Evaporation rate	**:**	No data available
I. Flammability	**:**	Flammable aerosolse
J. Upper/lower flammability or explosive limits	**:**	LEL: 0.8% UEL: 8.4%
K. Vapour pressure	**:**	No data available
L. Solubility		
Water	**:**	Insoluble
M. Vapour Density	**:**	>1
N. Specific dravity	**:**	No data available
O. N-octanol/water partition coefficient	**:**	No data available
P. Auto-ignition temperature	**:**	No data available
Q. Decomposition tempeature	**:**	No data available
R. Viscosity	**:**	2.79-2.96 cSt (38℃)
S. Explosiveness	**:**	No data available

10. Stability and Reactivity

A. Chemical stability	:	Stable
B. Possible of	:	Generate heat and strong oxidant reacts

hazadous reaction		
C. Condition to avoid	:	Avoid heat, sparks, flames and other sources of ignition. Do not puncture or incinerate containers.
D. Incompatibilities material	:	Strong oxidizing agents.
E. Hazardous Decomposition Products	:	Carbon monoxide and carbon dioxide.

11. Toxicological Information

A. Symptoms of Overexposure:		
Inhalation	:	High concentrations may cause nasal and respiratory irritation and central nervous system effects such as headache, dizziness and nausea. Intentional abuse may be harmful or fatal.
Oral intake route	:	This product has low oral toxicity. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea. This product is an aspiration hazard. If swallowed, can enter the lungs and may cause chemical pneumonitis, severe lung damage and death.
Eye, skin contact	:	Contact may be irritating to eyes. May cause redness and tearing. Prolonged and/or repeated contact may produce mild irritation and defatting with possible dermatitis.
Chronic Effects:	:	None expected.
Medical Conditions Aggravated by Exposure	:	Preexisting eye, skin and respiratory conditions may be aggravated by exposure.
B. Short-term and long-term exposure Delayed and immediate effects and also chronic effects		
Acute toxicity	:	Acute: LD_{50} > 5,000 mg/kg Dermal: LD_{50} > 2,000 mg/kg
Skin corrosion/ irritaion	:	No data available
Serious eye damage/ irritaion	:	No data available
Respiratory sensitization	:	No data available
Skin sensitization	:	No data available
Carcinogenicity	:	Products IARC, NTP, ACGIH, OSHA doesn't contain carniogenicity
Germ cell	:	No data available
Mutagenicity	:	No data available
Reproductive toxicity	:	Does not contain any substances that may cause reproductive toxcity
STOT-single exposure	:	No data available

No data available

STOT-repeated exposure :

Have aspiration hazard

Aspiration hazard :

No data available

Additional toxicity information :

12. Ecological Information

A. Aquatic rerrestrial ecotoxicity

Fish : No data available
Crustacean : No data available
Algae : No data available

B. Persistence and degradability

Persistence : No data available
Degradability : No data available

C. Bioaccumulative

Bioacumulation : Not bioaccumulative (based on product component)
Biogegaradability : Biogegaradability

D. Mibility in soil : No data available

13. Disposal Considerations

A. Methods of disposal : To pack and seal, display, dipose or to recycle the wasted product and package containers, should follow the local or region regulation

B. Dipsal considerations : Dispose in accordance with local or region regulations

14. Transportation Information

A.UN number : UN 1950

B. UN PSN (Proper shipping name) : Aerosols, flammable

C. Hazard class : 2.1

D. packing : Ltd. Qty

E. Marine pollution : Not applicable

F. Special precautions for user

In case of fire : No data available
In case of spill : No data available

15. Regulatory Information

A. Industry Safety and Health Act :

Chemical	Regulation
Aliphatic Hydrocarbon	Set expose standard substance
Petroleum gases, liquefied	Set expose standard substance

B. Toxic Chemicals Control Act : Not applicable

C. Safety Control of Dangerous Substance Act : Not applicable

D. Waste Control Act :

Chemical	Regulation
Aliphatic Hydrocarbon	Designation Waste

E. National laws which implement these provisions and any other national measures that may be relevant :

Domestic Regulation
Persistent Organic Pollutants Act: Not applicable

Foreign Regulation
OSHA: Not applicable
CERCLA: Not applicable
EPCRA 302: Not applicable
EPCRA 304: Not applicable
EPCRA 313: Not applicable
Rotterdam Convention on substances: Not applicable
Stockholm Convention on Persistent Organic Pollutants: Not applicable
Montreal Protocol on substances: Not applicable

16. Other Information

A. Reference : Manufacurer-supplied information and the MSDS (including test
Provide date form Korea Occupational Safety and Health Agency
NCIS Chemical Information system

B. Date of draft : June. 21. 2013

C. Number of version and final revision : Version: 2st (Korean)
Final date: September. 14. 2015

D. Other : Non