

Material Safety Data Sheet

Name of product	PB-1 for Car and Industry
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1. Chemicals and Company Information

A. Name of Product	APC for Car and Industry
B. Recommended Use and Restriction on Use of Product	
Recommended Use of Product	No Data
Restrictions on Use of Product	No Data
C. Maker/Importer/Distributor Information	
Name of Company	PISCES
Address	586-5, Geumseung-ri, Tanhyeon-myeon, Paju-si, Gyeonggi-do
Emergency Tel. No.	010-5624-1658

2. Harmfulness. Riskness

A. Classification of Harmfulness. Riskness Serious injury to eye /Eye Irritation : classification #2

B. Items of Warning Signals including Prevention Words

Pictograph



Singal Words

Warning

Phases warning harmfulness and riskness

H319 Cause serious irritation to eye

Prevention. Measures Phases

Prevention

P264 Wash hands thoroughly after handling.

P280 Wear protective gloves, protective face shield, goggles (...)

Measures

P305+P351+P338 If you get the eye, carefully rinse with water for several minutes, remove contact lenses, if possible. Continue rinse.

P337+P313 If eye irritation persists, seek medical advice.

Storage

No Data

Disuse

No Data

C. Other Harmfulness· Riskness not including the standard of classification (NFPA)

Health

2

Fire

0

Reactivity

0

3. Names and Contents of Ingredients

Substance	Alias(Popular Name)	CAS No.	Content(%)
Butyl Cellosolve	Buthyl Cellosolve; 2-Butoxyethanol	111-76-2	Below 4%
SODIUM METASILICATE, PENTAHYDRATE)	SILICIC ACID, DISODIUM SALT, PENTAHYDRATE;	10213-79-3	Below 2%
ALPHA-(4-NONYLPHENY-OMEGA-POLYHYDOXY (OXY-1,2-ETHANEDIYL)	NONYLPHENOL POLYETHYLENE GLYCOL ETHER;	127087-87-0	Below 4%
WATER	DIHYDROGEN OXIDE;	7732-18-5	Below 90%

4. Tips for Emergency Measures

A. If having in eye	If you get the eye, carefully rinse with water for several minutes, remove contact lenses, if possible. Continue rinse.. If eye irritation persists, seek medical advice
B. If touches the skin	If contacting skin slightly, prevent the spread of contamination. Seek emergency medical attention. Remove contaminated clothing and shoes, and isolate the contaminated area
C. If inhales	If you contact to substance, immediately wash hands and eyes with flowing water over 20 Move to fresh air. If not breathing, administer artificial respiration Keep warm and stable Provide oxygen if breathing is difficult
D. If drinks in	Seek emergency medical attention
E. Other medical attention	Let medical personnel be aware of the substance and take action to protect it.

5. How to cope with Explosion or Fire

A. Suitable (unsuitable) fire extinguishing agent	For extinguishing a fire related to this substance, use alcohol-resistant foam, carbon dioxide or For extinguishment by smothering, use dry sand or soil.
B. Specific Harmfulness caused by chemical substance	During burning, highly toxic gases may be generated due to thermal decomposition or combustion. A part may be burned but not easily ignited. Container may explode by heating. Non-flammable, substance itself does not burn, but the decomposition by heating may generate corrosive / toxic fumes.
C. Protective gear to be equipped and precautionary measures	When tank is on fire, extinguish it in a distance or use an unmanned fire apparatus. If not a risky job, move the container from the fire area. For disposing water for extinguishing fires, dig a ditch and keep water in the ditch so that substance is not scattered. Be careful that substance may be transported in a melting state. Extinguish a fire with maintaining a safe distance outside the area. The rescuer should wear suitable protective gear. Even if the fire at the tank is extinguished, cool the tank with plenty of water. In case of a large-scale fire at tank, use an unmanned fire extinguisher or if impossible to use such equipment, just leave it burned completely. If a tank is enveloped in flames, stand back. If a loud sound is listened from the pressure release device or the color of tank is changed, stand back immediately from the burning tank.

6. How to cope with leakage accident

A. Measures and protective gear for protecting the human body	Remove all sources of ignition. Wipe spills immediately and follow the preventive. If not in danger, stop the leakage. Without suitable protective clothing, do not touch the broken container or leak. Stop the spread by covering with plastic sheets. Pay attention to substances and conditions to be avoided.
B. Measures necessary for protecting environment	Prevent not to flow into waterways, sewers, basements or confined spaces.
C. Purifying or Eliminating Methods	In case of spilling, absorb it with inert substance (eg, dry sand or soil) and put it in a chemical container. Absorb the liquid, and wash contaminated area in water and detergent.

7. Handling and Storing Methods

A. Safe Handling Instructions	Pay attention to substances and conditions to be avoided.
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A. Safe Handling Instructions	Even if the container is emptied, follow all MSDS / label prevention steps as there may be any product residue. Work with referring to engineering controls and personal protective gear.
B. Safe Storage Instructions	Wash hands thoroughly after handling. Completely drain an empty drums, stop up the hole properly, back to the drum controller back or arrange it adequately.

8. Exposure controls and personal protective gear

A. Chemical substance exposure standards and

Biological exposure, etc

Domestic regulations No Data

ACGIH regulations No Data

Biological exposure standards No Data

B. Appropriate Engineering Controls

Must install a washing equipment and a safety shower for the facilities storing or using this

C. Personal Protective Gear

Respiratory Protection

Wear the respiray protection gear approved from Korea Occupational Safety & Health Agency appropriate to physicochemical properties of exposed substance.

Eye Protection No Data

Hand Protection No Data

Body Protection No Data

9. Physical and Chemical Properties

A. External Appearance

Characteristics Liquid

Color Colorless (transparency)

B. Odor l Hydrocarbon odor

C. Odor threshold (N/A)

D. pH 10

E. Melting / freezing point No Data

F. Initial boiling point and boiling range 107 °C

G. Ignition point (N/A)

H. Evaporation Rate No Data

I. Flammability (solid, gas) N/A

J. Flammability or explosive limits: upper / lower - / - (N/A)

K. Vapor Pressure No Data

L. Solubility 100 g/100mℓ

M. Vapor Density No Data

N. Specific gravity 1.0265

O. n-Octanol/Water Partition Coefficient No Data

P. Natural Ignition Temperature No Data

Q. Decomposition Temperature No Data

R. Viscosity No Data

S. Molecular Weight No Data

10. Stability and Reactivity

A. Chemical Stability and Possibility of Harmfulness Reaction

Containers may explode at heating.

A portion may be burned, but not easily ignited

Fire may cause irritating, corrosive and toxic gases.

Non-flammable, substance itself does not burn, but the decompositon by heating may generate corrosive / toxic fumes.

B. Conditions to be avoided

Ignition sources, such as heat, sparks, flames, etc

C. Substances to be avoided	Flammable Substance, reducing substance
D. Harmful substances generating at the time of decomposition	During burning, highly toxic gases may be generated due to thermal decomposition or combustion Corrosive / toxic fume

11. Information on toxicity

A. Information on the likely routes of exposure	No Data
B. Information on health harmfulness	
Acute Toxicity	
Oral	No Data
Sclerite	No Data
Inhalation	No Data
Skin corrosion or irritation	In Rabbit Patch Test, shows slight skin irritation.
Serious eye damage or irritation	Shows medium irritation on the eyes of Rabitt.
Respiratory oversensitiveness	No Data
Skin oversensitiveness	No Data
Carcinogenesis	
Occupational Safety and Health Act	No Data
Notification of Ministry of Labor	No Data
IARC	No Data
OSHA	No Data
ACGIH	No Data
NTP	No Data
EU CLP	No Data
Germ cell mutagenicity	No Data
Reproductive Toxicity	No Data
Specific target organ toxicity (single exposure)	No Data
Specific target organ toxicity (repeated exposure)	No Data
Aspiration Harmfulness	No Data

12. Impact on the environment

A. Ecotoxicology	
Fishes	No Data
Crustacea	No Data
Birds	No Data
B. Persistence and degradability	
Persistence	No Data
Degradability	No Data
C. Bioaccumulative	
Accumulation	No Data
Biodegradability	No Data
D. Mobility in soil	No Data
E. Other harmful impacts	No Data

13. Disuse Precautions

A. Method of Disuse	In case of provided by Waste Control Act, disuse the contents and container in accordance with the provisions.
B. Disuse Precautions	In case of provided by Waste Control Act, consider its precautions.

14. Transportation Information D

A. UN No.	No information on classifying the risky substances related to UN Transportation
B. Proper Shipping Name	N/A
C. Risk Grade in Transportation	N/A
D. Container Grade	N/A
E. Marine Pollution Substances	No Data
F. Special safety measures to be known by the user in relation to transportation or the means of	
Fire emergency measures	N/A
Leakage emergency measures	N/A

15. Legal Regulations

A. Occupational Safety and Health Act	No Data
B. Harmful Chemical Substance Control Act Regulations	No Data
C. Dangerous Substance Safety Control Act Regulations	No Data
D. Waste Control Act Regulations	No Data
E. Other domestic and foreign laws regulations	
Domestic Regulations	
Persistent Organic Pollutants Control Act	N/A
Overseas Regulations	
USA Control Information(OSHA Regulations)	N/A
USA Control Information(CERCLA Regulations)	N/A
USA Control Information(EPCRA 302 Regulations)	N/A
USA Control Information(EPCRA 304 Regulations)	N/A
USA Control Information(EPCRA 313 Regulations)	N/A
USA Control Information(Rotterdam Convention Substances)	N/A
USA Control Information(Stockholm Convention Substances)	N/A
USA Control Information(Montreal Protocol Substances)	N/A
EU Classification Information(Definite Classification Results)	N/A
EU Classification Information(Risk Phases)	N/A
EU Classification Information (Safety Phases)	N/A

16. Other reference data

A. Sources

B. Date of initiation preparation 2011-05-25

C. Revision number and date of last revision

Revision Number 0

Date of Last Revision 0

D. Others

○ This written Matter Safety Health Substance Data Sheet (MSDS) is based on MSDS provided by the Korea Occupational Safety and Health Agency through editing and partial amending process.

