



# **Basic Info**

### Description

WW-3009N is Cleanroom Wiper applied with Thermal cutting to minimize the particle generation on edges. Using the specially weaved 100% Polyester prevents from the generation of Particle and Fiber and improves the absorbency and wipe ability.

WW-3009N is produced in special cleaning facilities And with Cleaning Know-how.

## **Technical Data**

Property		unit	SPEC
Mate	Material		Polyester
	MD	mm	230±10
Length	TD	mm	230±10
		g/sh	6.8±0.7
Weig	Weight		130±13
Thickr	Thickness		500±20
Time to	HORI.	sec/6Φ	≤ 4
sorption	VERTI.	sec/5cm	≤ 60
		g/sh	≥ 15.7
Absorb	ency	g/㎡	≥ 300
APC	≥0.3 µm	ea/sh, 1cfm	≤ 60
LPC	0.5 <i>µ</i> m	ea/ml	≤ 125
Lint	≥100µm	ea/sh	≤ 30

DATA SHEET

## **Product Environment**

- Laundered and packed in class10 clean room (Certified ISO 9001:2009)
- Assure quality from material manufacture to shipment
- Cleanroom is continually managed for maximum customer satisfaction
- Using De-ionized water to minimize ions and Particles
- Utilizing U/F system to reduce the number of particles (above  $0.3\mu$ m) less than 50 per ml

### Application

• Wiper for Cleanroom

#### **Features**

- Minimizes Particles, NVR and Ion contents
- Special process for better wipe and absorption capacity
- Double-wrapped to prevent contamination
- High absorbing rate and capacity

#### Anseong Office

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#### Anseong Factory

269-2 Kyereuk, Miyang, 516-5 Jujin, Anseong, Gyeonggi, Korea Tel 031-678-8900 Fax 031-678-8960

#### Pyeongchang Factory Anseong Logistics Pyeongchang, Gangwon, Korea Tel 033-333-6660 Fax 033-332-9287

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[Old] 269-2 Kyereuk, Miyang, Ansung-Si KyounKi-Do, Korea [New] 11, Je2gongdan 2-gil, Miyang-myeon, Anseong-si, Gyeonggi-do, Korea

# Analysis Report

Job Number VC-22-01 TEL(031)678-8938 FAX(031)678-8960

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Analysis Date 2021.03.22

1. Title & objest	WW-3009, WW-3009N 제품 Particle 품질 검증
2. Client	해외영업팀 이상환)
3. Kind of Sample	WW-3009, WW-3009N
4. Analysis Item & Method	APC (JIS-B-9923 6.2 Tumbling Method), Lint (IEST-RP-CC004.2)
5. Equipment	APC (TSI-9110), Lint (S-Counter_S1-50)
6. place & Analyst	㈜케이엠 1공장 분석실
7. Purpose	WW-3009, WW-3009N Particle 수준 파악 목적 품질 검증

1. 시료 정보

-. 제조일자 2021.03.17 (수) ① WW-3009 ② WW-3009N 제품

2. 품질 분석 결과

\*Sample : 3ea

Droporty	Property Unit	Spec	Product	
Property		spec	WW-3009	WW-3009N
APC	E A	≤50, ≥0.3µm	5.48	6.92
Lint	EA	≤ 25EA/sh, ≥100µm	1.00	4.00

KM CORPORATION ANALYSIS CENTER Tested by Dabin Jung Dabin-Jung note : 4. This Result is only available for the use above-mentioned Approved by BongKyu Kim BongKyu Kim

Mar. 22th' 2021 KM

ANALYSIS CENTER



# Material Safety Data Sheet

a. Product Name	Polyester Wiper		
b. Recommended usage and restriction in use			
Recommended usage	Cleaning for the clean environment		
c. Information on manufacturer/importer/distributor	-		
Company name	KM Co., Ltd.		
Address	2 Gil 11, Industrial Zone No. 2, Miyang-myeon,	Anseong-si, Gyeonggi-do	
Emergency phone no.	031-678-8917		
L Hazards and rick Identification			
Hazards and risk Identification	Notapplicable		
<ul> <li>a. Classification of hazards and risks</li> <li>b. Warning statements including the preventive action worlds</li> </ul>	Not applicable		
Pictogram	Not applicable		
Signal word	Not applicable		
Hazard statements	Not applicable		
Precautionary statements			
Prevention	No data available		
Response	No data available		
Storage	No data available		
Disposal	No data available		
c. Hazards and risks which are not contained in the classification of haza			
Health	1		
Fire	1		
Reactivity	0		
3. Composition/information on ingredients			
Substance	Other name (Official name)	Cas No.	Contents (%)
Polyethylene Terephthalate	POLY(OXY-1,2-ETHANED)	25038-59-9	100.00%
4. First aid measures			
a. After eye contact	Rinse the opened eye for more than 20 minute	under the running water immediately.	
	Take the medical actions immediately.		
b. After skin contact	Not applicable		
c. After inhalation	Take the emergency medical care.		
	Move the person to the fresh air.		
	If the person does not breathe, conduct the CP	۶.	
	If the breathing is hard, supply the oxygen.		
d. After swallowing	Do not force the unconscious person to eat any Take the medical actions immediately.	thing through mouth.	
e. Notes to doctor	The medical person is recommended to know t	e substance and take the proper protec	tive actions
5. Firefighting measures			
a. Suitable extinguishing agents			
Suitable extinguishing media	Dry sand, dry chemicals, alcohol-resistant spray	, water spray, general spray, and CO2	
Non suitable extinguishing media	No data available		
In case of large fire	Water spraying or general spraying		
b. Hazard occurring from the chemical substance	It can be burned due to the heat, spark or flame	<u>.</u>	
	Some may be burnt but it does not easily get ig	nited.	
	If set fire, it can generate the toxic gas.		
	The inhalation of the substance may be hazard		
c. Protective equipment and precautionary measures in fire fighting	If not dangerous, try to move the bag from the	fire scene.	
6. Accidental release measures			
a. Actions and protective equipment required to protect the human	Not applicable		
b. Actions required to protect the environment	Not applicable		
c. How to purity or remove	Not applicable		
c. How to purify or remove	Not applicable		
	Not applicable		
c. How to purity or remove 7. Handling and storage a. Precautions for safe handling	Not applicable Pay attention to the substance and conditions i	o be avoided.	
7. Handling and storage			
7. Handling and storage	Pay attention to the substance and conditions		
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7. Handling and storage a. Precautions for safe handling	Pay attention to the substance and conditions f Try to work by referring to the engineering con Pay attention to the high temperature. Seal it for protection. Store it in cool and dry location.	rol and personal protective equipment.	
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7. Handling and storage a. Precautions for safe handling b. Safe storage method	Pay attention to the substance and conditions f Try to work by referring to the engineering con Pay attention to the high temperature. Seal it for protection. Store it in cool and dry location.	rol and personal protective equipment.	
7. Handling and storage a. Precautions for safe handling b. Safe storage method 8. Exposure controls/personal protection	Pay attention to the substance and conditions f Try to work by referring to the engineering con Pay attention to the high temperature. Seal it for protection. Store it in cool and dry location.	rol and personal protective equipment.	
7. Handling and storage a. Precautions for safe handling b. Safe storage method 3. Exposure controls/personal protection a. Standard of exposure of chemical substance and biological exposure	Pay attention to the substance and conditions i Try to work by referring to the engineering con Pay attention to the high temperature. Seal it for protection. Store it in cool and dry location. Pay attention to the substance and conditions i	rol and personal protective equipment.	
7. Handling and storage a. Precautions for safe handling b. Safe storage method 3. Exposure controls/personal protection a. Standard of exposure of chemical substance and biological exposure Domestic regulation	Pay attention to the substance and conditions Try to work by referring to the engineering con Pay attention to the high temperature. Seal it for protection. Store it in cool and dry location. Pay attention to the substance and conditions to No data available	rol and personal protective equipment.	
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7. Handling and storage a. Precautions for safe handling b. Safe storage method B. Exposure controls/personal protection a. Standard of exposure of chemical substance and biological exposure Domestic regulation ACGIH regulation Biological exposure standard b. Proper engineering control c. Personal protective equipment	Pay attention to the substance and conditions i Try to work by referring to the engineering con Pay attention to the high temperature. Seal it for protection. Store it in cool and dry location. Pay attention to the substance and conditions i No data available No data available No data available Use the process segregation or local ventilation	rol and personal protective equipment. o be avoided.	standard.
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<ul> <li>7. Handling and storage         <ul> <li>a. Precautions for safe handling</li> <li>b. Safe storage method</li> </ul> </li> <li>8. Exposure controls/personal protection         <ul> <li>a. Standard of exposure of chemical substance and biological exposure Domestic regulation             <ul> <li>ACGIH regulation                  Biological exposure standard</li> <li>b. Proper engineering control                  <ul> <li>c. Personal protection of respiratory organ</li></ul></li></ul></li></ul></li></ul>	Pay attention to the substance and conditions of Try to work by referring to the engineering con Pay attention to the high temperature. Seal it for protection. Store it in cool and dry location. Pay attention to the substance and conditions of No data available No data available Use the process segregation or local ventilation No data available No data available No data available No data available No data available No data available	rol and personal protective equipment. o be avoided.	standard.
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e. Melding point/ freezing point	254~284 °C
f. Initial boiling point and range of boiling point	Not applicable
g. Flash point	No data available
h. Evaporation rate	Not applicable
i. Flammability j. Upper limit/lower limit of flammability or explosion	No data available No data available
k. Vapor pressure	Not applicable
I. Solubility	Water solubility: insoluble
m. Vapor density	Not applicable
n. Density	1.33-1.45 (water=1)
o. n-octane/ waster partition coefficient	Not applicable
p. Self-igniting temperature	500 °C
q. Decomposition temperature	No data available
r. Viscosity	No data available
s. Molecular volume	No data available
0. Stability and reactivity	
0. Stability and reactivity a. Chemical stability and possibility of hazardous reactions	Stable at normal temperature and pressure
	Some can burn, but not easily ignite
	It may generate the irritating and poisonous gas in case of fire
	Inhalation of the substance may be harmful
b. Conditions to be avoided	Source of ignition such as heat, spark or flame
c. Substance to be avoided	Flammable material, irritant, toxic gas
d. Hazardous decomposition products	No data available
1. Toxicological information	No data available
<ul> <li>a. Information on the highly possible exposure route</li> <li>b. Information on hazard to health</li> </ul>	וזיט טמנס מיזמולטוב
Acute toxicity	
Mouse	LD50 >3200 mg/kg Rat
Skin	LD50 >1000 mg/kg Guinea pig
Inhalation	No data available
Skin corrosion and irritation	No data available
Serious eye damage/irritation	No data available
Oversensitive respiratory system	No data available
Oversensitive skin	No data available
Carcinogenicity	
Industrial Safety and Health Act	No data available
Ministry of Labor, Announcement IARC	No data available No data available
OSHA	No data available
ACGIH	No data available
NTP	No data available
EU CLP	No data available
Germ cell mutagenicity	No data available
Reproductive toxicity	No data available
STOT (specific target organ toxicity) -single exposure	No data available
STOT -repeated exposure	No data available
Aspiration hazard	No data available
2. Ecological information	
a. Bio toxicity	
Fish	No data available
Shellfish	No data available
Birds	No data available
b. Persistence and degradability	
Persistence	No data available
Degradability	No data available
c. Bioaccumulation	
Concentration	No data available
Biodegradability	No data available
Biodegradability d. Mobility in soil	No data available No data available
Biodegradability d. Mobility in soil e. Other harmful effects 3. Disposal considerations	No data available No data available No data available
Biodegradability d. Mobility in soil e. Other harmful effects 3. Disposal considerations a. Disposal method	No data available No data available No data available If specified in the Waste Control Act, the contents and bag shall be disposed of.
Biodegradability d. Mobility in soil e. Other harmful effects 3. Disposal considerations	No data available No data available No data available
Biodegradability d. Mobility in soil e. Other harmful effects 3. Disposal considerations a. Disposal method b. Cautions in disposal	No data available No data available No data available If specified in the Waste Control Act, the contents and bag shall be disposed of.
Biodegradability d. Mobility in soil e. Other harmful effects 3. Disposal considerations a. Disposal method b. Cautions in disposal 4. Transport information	No data available No data available No data available If specified in the Waste Control Act, the contents and bag shall be disposed of. No data available
Biodegradability d. Mobility in soil e. Other harmful effects 3. Disposal considerations a. Disposal method b. Cautions in disposal 4. Transport information a. UN No.	No data available No data available No data available If specified in the Waste Control Act, the contents and bag shall be disposed of.
Biodegradability d. Mobility in soil e. Other harmful effects 3. Disposal considerations a. Disposal method b. Cautions in disposal 4. Transport information	No data available No data available No data available If specified in the Waste Control Act, the contents and bag shall be disposed of. No data available No information on UN transportation hazard classification available
Biodegradability d. Mobility in soil e. Other harmful effects 3. Disposal considerations a. Disposal method b. Cautions in disposal 4. Transport information a. UN No. b. Proper shipping name	No data available No data available No data available If specified in the Waste Control Act, the contents and bag shall be disposed of. No data available No information on UN transportation hazard classification available Not applicable
Biodegradability d. Mobility in soil e. Other harmful effects 3. Disposal considerations a. Disposal method b. Cautions in disposal 4. Transport information a. UN No. b. Proper shipping name c. Hazard rating in transport d. Container rating e. Marine pollutants	No data available No data available No data available If specified in the Waste Control Act, the contents and bag shall be disposed of. No data available No tapplicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable
Biodegradability d. Mobility in soil e. Other harmful effects 3. Disposal considerations a. Disposal method b. Cautions in disposal 4. Transport information a. UN No. b. Proper shipping name c. Hazard rating in transport d. Container rating e. Marine pollutants f. Special safety measures which the user needs to know for transport or	No data available No data available No data available If specified in the Waste Control Act, the contents and bag shall be disposed of. No data available No tapplicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable Not applicable transportation means
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Biodegradability d. Mobility in soil e. Other harmful effects 3. Disposal considerations a. Disposal method b. Cautions in disposal 4. Transport information a. UN No. b. Proper shipping name c. Hazard rating in transport d. Container rating e. Marine pollutants f. Special safety measures which the user needs to know for transport or Emergency measures in case of fire Emergency action in case of release	No data available No data available No data available If specified in the Waste Control Act, the contents and bag shall be disposed of. No data available No tapalicable Not applicable Not applicable Not applicable No data available Itransportation means Not applicable
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Biodegradability d. Mobility in soil e. Other harmful effects 3. Disposal considerations a. Disposal method b. Cautions in disposal 4. Transport information a. UN No. b. Proper shipping name c. Hazard rating in transport d. Container rating e. Marine pollutants f. Special asfety measures which the user needs to know for transport or Emergency measures in case of fire Emergency action in case of release 5. Regulatory information a. Restriction according to the Industrial Safety and Health Act b. Restriction according to Hazardous Chemical Substance Control Act	No data available No data available No data available If specified in the Waste Control Act, the contents and bag shall be disposed of. No data available No data available Not applicable Not applicable
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Biodegradability d. Mobility in soil e. Other harmful effects 3. Disposal considerations a. Disposal method b. Cautions in disposal 4. Transport information a. UN No. b. Proper shipping name c. Hazard rating in transport d. Container rating e. Marine pollutants f. Special safety measures which the user needs to know for transport or Emergency measures in case of fire Emergency action in case of release 5. Regulatory information a. Restriction according to the Industrial Safety and Health Act b. Restriction according to Hazardous Substance Safety Control Act c. Restriction according to Waste Control Act e. Restriction according to Waste Control Act e. Restriction according to other domestic and foreign laws Domestic restrictions Residual organic contaminant Control Act	No data available No data available No data available If specified in the Waste Control Act, the contents and bag shall be disposed of. No data available No data available No information on UN transportation hazard classification available Not applicable Not applicable
Biodegradability d. Mobility in soil e. Other harmful effects 3. Disposal considerations a. Disposal method b. Cautions in disposal 4. Transport information a. UN No. b. Proper shipping name c. Hazard rating in transport d. Container rating e. Marine poliutants f. Special safety measures which the user needs to know for transport or Emergency measures in case of fire Emergency action in case of release 5. Regulatory information a. Restriction according to the Industrial Safety and Health Act b. Restriction according to Hazardous Chemical Substance Control Act c. Restriction according to Hazardous Substance Safety Control Act e. Restriction according to other domestic and foreign laws Domestic restrictions Residual organic contaminant Control Act Overseas restrictions	No data available No data available No data available If specified in the Waste Control Act, the contents and bag shall be disposed of. No data available No data available Not applicable Not applicable
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Biodegradability d. Mobility in soil e. Other harmful effects 3. Disposal considerations a. Disposal method b. Cautions in disposal 4. Transport information a. UN No. b. Proper shipping name c. Hazard rating in transport d. Container rating e. Marine pollutants f. Special safety measures which the user needs to know for transport or Emergency measures in case of fire Emergency action in case of fire Emergency action in case of release 5. Regulatory information a. Restriction according to the Industrial Safety and Health Act b. Restriction according to Hazardous Substance Control Act c. Restriction according to Augueto Control Act d. Restriction according to Uwaste Control Act e. Restrictions according to other domestic and foreign laws Domestic restrictions Residual organic contaminant Control Act Overseas restrictions US Control Information (CERCLA regulation) US Control Information (CERCLA regulation)	No data available No data available No data available If specified in the Waste Control Act, the contents and bag shall be disposed of. No data available No data available Not applicable Not applicable
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US Control Information (EPCRA 313 regulation	n)	Not applicable
US Control Information (Rotterdam Convention	on substance)	Not applicable
US Control Information (Stockholm Convention	on substance)	Not applicable
US Control Information (Montreal Protocol su	ibstance)	Not applicable
EU classification information (confirmed class	ification result)	Not applicable
EU classification information (hazard words)		Not applicable
EU classification information (safety words)		Not applicable
16. Other information		
a. Sources of data		
MSDS : www.kosha.or.kr which is provided by Safe	ty and Health Corp.	
b. Date of initial preparation	7/15/2003	
c. Number of revisions and date of final revision		
Number of revisions	3 times	
Date of final revision	3/8/2021	
d. Others		
• This data is based on our current knowledge and is interest.	nded to provide information	on health and safety environment.

Therefore, the information contained herein does not imply a guarantee or specification of the specific properties of the product.