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SAFETY DATA SHEET

1.IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Name	:	FLOWLEN AC-300
Product Code	:	4457
Company Name	:	KYOEISHA CHEMICAL Co.,LTD.
Address	:	6-12, 2-chome, Minamihonmachi, Chuo-ku, Osaka, 541-0054, Japan
Name of Section	:	Paint additives Research Department
Telephone No.	:	+81-742-62-1251
FAX	:	+81-742-63-3174
Emergency Telephone No.	:	+81-742-64-1986
E-mail	:	kenkan3@kyoeisha.co.jp
General Use	:	Defoaming agent

2.HAZARDS IDENTIFICATION

GHS Classification

Physical Hazards

Flammable Liquids	:	Category3

Health Hazards

Acute Toxicity(oral)	:	Not classified
Acute Toxicity(skin)	:	Not classified
Acute Toxicity(gas)	:	Not Applicable
Acute Toxicity(steam)	:	Category4
Acute Toxicity(mist)	:	Classification not possible
Skin Corrosion/Irritation	:	Category2
Eye Damage/Irritation	:	Category2
Sensitization - Respiratory	:	Classification not possible
Sensitization - Skin	:	Classification not possible
Germ Cell Mutagenicity	:	Classification not possible
Carcinogenicity	:	Category2
Toxic to Reproduction	:	Category1
Specific Target Organ Systemic Toxicity(Single Exposure)	:	Category1, Category3
Specific Target Organ Systemic Toxicity(Repeated Exposure)	:	Category1
Aspiration Toxicity	:	Classification not possible

Environmental Hazards

Hazard to the Aquatic Environment (Acute)	:	Category1
Hazard to the Aquatic Environment (Chronic)	:	Classification not possible
Hazardous to the ozone layer	:	Classification not possible

Label Element

Symbol :

Signal word : Danger

Hazard statement : H226 Flammable liquid and vapour

: H315 Causes skin irritation

: H319 Causes serious eye irritation

: H332 Harmful if inhaled

: H335H336 May cause respiratory irritation; or May cause drowsiness or dizziness

: H351 Suspected of causing cancer

: H360 May damage fertility or the unborn child

: H370 Causes damage to organs

: H372 Causes damage to organs through prolonged or repeated exposure

: H400 Very toxic to aquatic life

Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from ignition sources such as heat/sparks/open flame.-No smoking.

Keep container tightly closed.

Ground/Bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Take precautionary measures against static discharge.

Do not breathe dust/fume/gas/mist/vapours/spray.

Use only outdoors or in a well-ventilated area.

Avoid release to the environment.

Wash hands thoroughly after handling.

In case of inadequate ventilation wear respiratory protection.

Wear protective gloves and eye/face protection.

If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

If swallowed: Immediately call a poison center or doctor/physician.

Do not induce vomiting.

If in eyes: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do.

Continue rinsing.

If eye irritation persists, get medical advice/attention.

If on skin (or hair): Remove/take off immediately all contaminated clothing.

Rinse skin with water/shower.

If on skin: Wash with plenty of soap and water.

If skin irritation occurs, seek medical advice/attention.

If exposed or concerned: Get medical attention/advice.

Get medical attention/advice if you feel unwell.

In case of fire, use for extinction appropriate media specified by the manufacturer/supplier or the competent authority-if water increases risk.

Store container tightly closed/ locked up in well-ventilated place.

Dispose of contents/container in accordance with local/regional/national/international regulation.

3.COMPOSITION, INFORMATION ON INGREDIENTS

Material specification : Mixture

Chemical name	Content(%)	CAS No.
Vinyl ether polymer/Methacrylate polymer/Acrylate polymer	77	Confidential
Ethyl benzene	12	100-41-4
Xylene	11	1330-20-7

4.FIRST AID MEASURES

Inhalation : Immediately remove affected person into fresh air and keep at rest. Seek immediate medical treatments if affected severely.

: When breathing is weak and stops, practice artificial respiration after loosen clothing and having secured the breathing respiratory tract.

Skin Contact : Throw off polluted clothes, the shoes immediately.

: Cut clothes, if necessary.

: Wash with plenty of soap and water.

: If cleaning is delayed, it was insufficient, there is likely to cause failure to the skin.

: A change is seen in the appearance and receives medical measures promptly when it is painful.

Eye Contact : Rinse cautiously with water for several minutes.

: Remove, when you are wearing contact lenses and you can remove easily.

: If eye irritation persists, get medical advice/attention.

: When this product gets into eyes, it is necessary to completely wash away the product which entered including washing as soon as possible.

: It is late to begin washing and might produce the injury of the eyes which are irreversible when insufficient.

Ingestion : Clean the mouth thoroughly with water.

: When disaster victims do not have awareness, don't give nothing from a mouth.

5.FIRE FIGHTING MEASURES

Extinguisher Media : Foam, Carbon dioxide, Dry powder, sand.

: Do not use water if avoidable.

Not use extinguisher Media : Water use may increase the risk for fire.

Flammable Properties : There is a threat that it occurs with pungency, causticity or toxic gas and Hume by a fire.

: Flammable liquid and steam.

: There is a threat that a container explodes by heating.

Fire Fighting Instructions : Shut off all flammable materials and fire is extinguished by using an appropriate extinction medicine.

: The extinction work is done from the windward as much as possible.

Protective measures in fire : Wear a tool for appropriate protection (gloves, glasses, mask) by the fire extinguishing work.

6.ACCIDENTAL RELEASE MEASURES

Personal precautions : Use personal protective clothing (gloves, glasses, respirator and so on).

: Ensure adequate ventilation.

Environmental precautions : It is noted that the product that flows out is exhausted to the river etc.

: Do not allow to release untreated polluted water.

Methods for cleaning up/taking up	:	In the case of a small quantity, take up with absorbent material (eg sand, kieselguhr, universal binder). Deposit in appropriate containers for removal and disposal.
	:	In the case of a large quantity, a wall prevents an outflow by laying earth on the ground and handles it after leading it to the safe place.
Preventive measures against second disasters	:	Remove a thing becoming the nearby firing source immediately and prepare for extinguishant.
	:	Use the safe tool which does not produce a spark.

7.HANDLING AND STORAGE

Handling

Handling	:	Exhaust ventilation at the object is necessary. Avoid contact with skin, eyes or clothing.
	:	Wash thoroughly after handling.
Local exhaust, whole ventilation	:	Handle it with facilities with local exhaust or the whole ventilation.
Instructions	:	Fire attention.
Safe handling instructions	:	Perform ventilation in the work enough and wear a tool for appropriate protection such as protection glasses, protection gloves.
	:	Wash a hand, a face after the handling well and gargle.

Storage

Storage	:	Keep container tightly closed.
	:	Keep away from heat or sunlight.
Safe container wrapping	:	Use a container prescribed by the law.

8.EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Component	ACGIH:TWA	ACGIH:STEL
Vinyl ether polymer/Methacrylate polymer/Acrylate polymer	Not Established	Not Established
Ethyl benzene	20ppm	125ppm
Xylene	100ppm	150ppm

Engineering Controls	:	Use exhaust ventilation.
	:	Near a handling place, install facilities for washing eyes and physical washing.

Personal Protection

Respiratory	:	Dust protective mask, a gas mask by need.
Hand Protection	:	Gloves (solvent-proof).
Eye Protection	:	Chemical goggles and face shield when handling.
Skin Protection	:	To prevent any contact, wear impervious clothing such as gloves, apron, boots, or whole body suits made from neoprene, as appropriate.

9.PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Colorless or light yellow liquid
Odor	:	Solvent oder
pH	:	Not applicable
Melting Point	:	No information available
Boiling Point	:	No information available
Flash Point	:	45℃
Range of explosion	:	No information available
Vapor pressure	:	No information available

Vapor density	:	No information available
Specific gravity	:	0.904(25℃)
Solubility	:	Water: Insoluble
Water partition coefficient	:	No information available
Autogenous ignition temperature	:	No information available
Decomposition temperature	:	No information available
Viscosity	:	No information available

10.STABILITY AND REACTIVITY

Stability	:	It is stable in normal handling conditions.
Reactivity	:	Reactiveness none special.
Conditions to Avoid	:	Heat, high temperature.
Materials to Avoid	:	No information available
Hazardous Decomposition Products	:	CO, CO2

11.TOXICOLOGICAL INFORMATION

Acute Toxicity(oral)

Ethyl benzene	:	Category5 (EHC 186 (1996)) rat LD50 3500.00 mg/kg
Xylene	:	Category5 (CaPSAR (1993)) rat LD50 3500.00 mg/kg

Acute Toxicity(skin)

Ethyl benzene	:	Not classified (ACGIH (7th, 2002)) rabbit LD50 15400.00 mg/kg
Xylene	:	Category5 (IUCLID (2000)) rabbit LD50 4350.00 mg/kg

Acute Toxicity(gas)

No information available

Acute Toxicity(steam)

Ethyl benzene	:	Category4 (ATSDR (1999)) rat LC50 17.20 mg/L
Xylene	:	Category5 (Japan Environment Agency Risk Assessment Vol.1 (2002)) rat LC50 29.08 mg/L

Acute Toxicity(mist)

No information available

Skin Corrosion/Irritation

Ethyl benzene	:	Category3 Mild irritation (ATSDR (1999))
Xylene	:	Category2 Moderate irritating (CERI・NITE Hazard Assessment Form No.62 (2004))

Eye Damage/Irritation

Ethyl benzene	:	Category2B Moderately irritating (EHC 186 (1996))
Xylene	:	Category2A Moderate irritation (CERI・NITE Hazard Assessment Form No.62 (2004))

Sensitization - Respiratory

No information available

Sensitization - Skin

No information available

Germ Cell Mutagenicity

Ethyl benzene	:	Not classified Negative (SIDS(2005))
Xylene	:	Not classified Negative (CERI・NITE Hazard Assessment Form No.62 (2004), CaPSAR (1993), IARC (1999), NTP DB (Access on December 2005))

Carcinogenicity

Ethyl benzene : Category2 2B (IARC(2000)), A3 (ACGIH(2001)

Xylene : Not classified A4 (ACGIH(2001)), Group 3 (IARC(1999)))

Toxic to Reproduction

Ethyl benzene : Category1B Teratogenic (CERI Hazard Data Collection 96-41(1998)、SIDS (2005)、Japan ministry of the Environment Risk Assessment Vol.1(2002))

Xylene : Category1B Teratogenic (CERI・NITE Hazard Assessment Form No.62 (2004), EHC 190 (1997), IRIS (2003))

Specific Target Organ Systemic Toxicity(Single Exposure)

Ethyl benzene : Category2 (central nervous system)
Category3 (respiratory tract irritation)
(CERI Hazard Data Collection 96-41(1998))

Xylene : Category1 (respiratory, liver, central nervous system, kidney)
(CERI・NITE Hazard Assessment Form No.62 (2004), Japan Environment Agency Risk Assessment Volume 1 (2002))
Category3 (anesthetic action) (EHC 190 (1997))

Specific Target Organ Systemic Toxicity(Repeated Exposure)

Xylene : Category1 (respiratory, nervous system)
(DFGOT Vol.15 (2001), CERI・NITE Hazard Assessment Form No.62 (2004))

Aspiration Toxicity

Ethyl benzene : Category1 0.74 mm2/s(25℃)
If swallowed, there a risk of developing pneumonia.(ICSC (J) (1995))

Xylene : Category2 If swallowed, there is a risk of developing pneumonia.(ICSC (J) (2002))

12.ECOLOGICAL INFORMATION

Hazard to the Aquatic Environment (Acute)

Ethyl benzene : Category1 Brown shrimp 96h-LC50=0.4mg/L (CERI・NITE Hazard Assessment report (preliminary), 2006)

Xylene : Category2 Oncorhynchus mykiss 96h-LC50=3.3mg/L (CERI・NITE Hazard Assessment Statement, 2005)

Hazard to the Aquatic Environment (Chronic)

Ethyl benzene : Not classified Rapid degradability(SIDS、2005)
Low bioaccumulation (log Kow = 3.15(PHYSPROP Database、2005))

Xylene : Category2 No rapid degradability(Degree of degradation by BOD :39%(CERI Hazard Assessment Statement, 2005))
Low bioaccumulation (log Kow = 3.16(PHYSPROP Database、2005))

Ecotoxicity to fish

Xylene : Oncorhynchus mykiss 96h-LC50=3.3mg/L (CERI・NITE Hazard Assessment Statement, 2005)

Ecotoxicity to invertebrate

Ethyl benzene : Brown shrimp 96h-LC50=0.4mg/L (CERI・NITE Hazard Assessment report (preliminary), 2006)

Ecotoxicity for algae

No information available

Persistence and Degradability

Ethyl benzene : Rapid degradability(SIDS、2005)

Xylene : No rapid degradability(Degree of degradation by BOD :39%(CERI Hazard Assessment Statement, 2005))

Bioaccumulative Potential

Ethyl benzene : Low bioaccumulation (log Kow = 3.15(PHYSPROP Database、2005))

Xylene : Low bioaccumulation (log Kow = 3.16(PHYSPROP Database、2005))

Mobility in soil

No information available

Hazardous to the ozone layer

No information available

13.DISPOSAL CONSIDERATIONS

Rest waste	:	Dispose of in accordance with relevant legislation and local standards.
	:	Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority.
	:	When you incinerate this product, be careful because it contains flammable substance.
A pollution container, packing	:	When disposing of empty containers, after complete removal of the contents and processes in accordance with local standards.

14.TRANSPORT INFORMATION

International regulations

Sea Transport IMDG	:	The product in accordance with the rules of the IMO.
UN Number	:	1866
Proper Shipping name	:	RESIN SOLUTION, flammable
Class	:	Class3 Flammable liquids
Packing Group	:	Ⅲ
Marine Pollutant Material	:	The product should not be marked as a marine pollutant.
MARPOL, IBC code	:	No correspondence
Air Transport ICAO/IATA	:	The product in accordance with the rules of the ICAO / IATA.
UN Number	:	1866
Proper Shipping name	:	RESIN SOLUTION, flammable
Class	:	Class3 Flammable liquids
Packing Group	:	Ⅲ

15.REGULATORY INFORMATION

Follow all regulations in your country.

16.OTHER INFORMATION

This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of KYOEISHA CHEMICAL Corporation.

It relates only to the specific product designated herein, and does not relate to use in combination with any other material or process.

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