Safety Data Sheet

1. Product and company identification

Product name : Aurexel MD-101B

Name of manufacturer : KANTO CHEMICAL CO. . INC.

Address : 2-1, Nihonbashi, Muromachi 2-Chome, Chuo-Ku, Tokyo, 103-0022, Japan

Name of section : Electronic materials division technical department

Telephone number : +81-3-6214-1080Facsimile number : +81-3-3241-1043

Mail address : el-info@gms.kanto.co.ip

SDS No. : GE10685

2. Summary of danger and Hazard

GHS classification

Physical and chemical hazard

Flammable liquids : Out of category Pyrophoric liquids : Out of category Self-heating substances and mixtures

: Out of category

Substances and mixtures which, in contact with water, emit flammable gases

: Out of category

Oxidizing liquids : Out of category

Human health hazard

Serious eye damage/eye irritation

: Out of category

Reproductive toxicity

: Category 1B

Specific target organ systemic toxicity (single exposure)

: Category 1

Specific target organ systemic toxicity (repeated exposure)

: Category 1

Pictogram or symbol



Signal word : Danger

Hazard statement : May damage fertility or the unborn child

May cause harm to breast-fed children Causes damage to organs (thyroid gland)

Causes damage to organs (thyroid gland, skin, systemic toxicity)

through prolonged or repeated exposure

Cautions

Safety measurements : Do not handle until all safety precautions have been read and

understood.

Do not breathe dust, mist, and vapor.

Avoid contact during pregnancy and while nursing. Do not eat, drink or smoke when using this product.

Wear appropriate protective gloves, glasses, clothing, face shield, or

mask.

Wash hands thoroughly after handling.

First-aid measures : If exposed, get medical treatment.

Get medical treatment, if you feel unwell.

Storage : Store locked up.

Disposal : Dispose of contents and containers appropriately in accordance with

related regulations.

3. Composition/Information on ingredients

Substance/Mixture : Mixture

Ingredients and composition

: Compound A max. 15%
Compound B max. 15%
Compound C max. 1%
Compound D max. 1%
Water min. 68%

Chemical formula : Compound A nondisclosure

Compound B nondisclosure Compound C nondisclosure Compound D nondisclosure

Water H20

CAS No. : Compound A nondisclosure

Compound B nondisclosure Compound C nondisclosure Compound D nondisclosure

Water 7732-18-5

TSCA Inventory : Registered

EINECS No. : Compound A nondisclosure

Compound B nondisclosure Compound C nondisclosure Compound D nondisclosure

Dangerous and hazardous ingredients

: Compound A, Compound B, Compound C, Compound D

4. First aid measures

Inhalation : Remove the victim to fresh air, and make him blow his nose and gargle.

Skin contact : Wash the affected areas under running water. Eye contact : Wash the affected areas under running water.

Ingestion : Give the victim water or salt water and induce vomiting. If necessary,

get medical attention.

5. Fire fighting measures

Extinguishing media : This product is noncombustible.

Prohibited extinguishing media

: None

Particular fire fighting: Move containers from fire area if it can be done without risk, if not

possible, apply water from a safe distance to cool and protect

surrounding area.

Protection for firefighters

: Firefighters should wear protective equipment.

6. Accidental release measures

Cautions for personnel : Wear proper protective equipment and avoid contact with skin and

inhalation of vapor. Conduct operations from upwind and evacuate

people downwind.

Cautions for environment : Attention should be given to avoid discharge of spilled product into

rivers and resulting environmental damage. When diluting spill with large amounts of water, discharge of untreated wastewater into the

environment must be avoided.

Removal measure : Absorb spill with inert material (e.g., diatomaceous earth, sand) and

flush spillage area with copious amounts of water.

7. Cautions of handling and storage

Handling

Engineering measures : If necessary, wear appropriate protective equipment to avoid contact

with skin or inhalation of vapor.

Cautions for safety handling

: Avoid formation of vapor and aerosols.

Storage

Adequate storage condition

: Replace N2 gas, store in a dark, cool place and tightly closed.

Safety adequate container materials

: Glass, polyethylene, polypropylene

8. Exposure control/Personal protection

Engineering measures : Use with an enclosed system or a local exhaust ventilation.

Control parameters

ACGIH(2015) : Compound A Not established

Compound B Not established Compound C Not established Compound D Not established

Protective equipment

Respiration protective equipment

: If necessary, wear a chemical cartridge respirator.

Hands protective equipment

: Impervious protective gloves



Eyes protective equipment

: Safety goggles

Skin and body protective equipment

: Protective clothing, protective boots

9. Physical and chemical properties

Appearance : Liquid

Color : Light yellow

Odor : Slight characteristic odor

pH : 6.7

Boiling point : Not available
Melting point : Not available
Flash point : Not available
Auto-ignition point : Not available

Explosion characteristics

Explosion limit : Not available
Density : Not available

Solubility

Solubility in solvents : Water ; Miscible

Other data : Specific gravity : 1.16 $(20/20^{\circ}C)$

10. Stability and reactivity

Stability : Stable under normal conditions.

Reactivity : May react with oxidizing substances.

Incompatible conditions : Light, heat

Incompatible materials : Oxidizing substances

Hazardous decomposition products

: When heated to decomposition it emits very toxic fumes of I- and K20.

Carbon monoxide, nitrogen oxides, sulfur oxides

11. Toxicological information

Acute toxicity : Oral : Not possible to classify because of insufficient data.

Dermal: Not possible to classify because of insufficient data.

Inhalation(vapor) : Not possible to classify because of insufficient

data.

Inhalation(dust, mist) : Not possible to classify because of

insufficient data.

Skin corrosion/irritation: Not possible to classify because of insufficient data.

Serious eye damage/eye irritation

: Out of category

Respiratory sensitization or Skin sensitization

: Respiratory sensitization : Not possible to classify because of

insufficient data.

Skin sensitization: Not possible to classify because of insufficient

data.

Mutagenicity: Not possible to classify because of insufficient data.



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Carcinogenic effects : Not possible to classify because of insufficient data

Effects on the reproductive system

: May damage fertility or the unborn child(category 1B)

May cause harm to breast-fed children

Specific target organ systemic toxicity single exposure

: Cause damage to organs (thyroid gland) (category 1)

Specific target organ systemic toxicity repeated exposure

: Cause damage to organs (thyroid gland, skin, systemic toxicity)

through prolonged or repeated exposure (category 1)

Aspiration hazard : Not possible to classify because of insufficient data.

12. Ecological information

Ecotoxicity

Fish toxicity : Acute aquatic toxicity : Not possible to classify because of

insufficient data.

Chronic aquatic toxicity: Not possible to classify because of

insufficient data.

Persistence and degradability

: Not available

Mobility in soil : Not available

13. Disposal consideration

Residual disposal : Dissolve in a water and dispose of in accordance with applicable laws

and local regulations. Or entrust approved waste disposal companies

with the disposal.

Containers : In case of disposal of empty bottles, dispose bottles after removing

the content thoroughly.

14. Transport information

UN class : It is not regulated under UN regulations.

15. Regulatory information

Ensure this material in compliance with federal requirements and

ensure conformity to local regulations.

16. Other information

References Encyclopaedia Chemica, Kyoritsu Shuppan Co., Ltd. (1963)

Dangerous Properties of Industrial Materials, 6th ed. N. I. Sax Van

Nostrand Reinhold Company (1984)

Japanese Phamacopoeia 17th revised description, Hirokawa Publishing

Co. (2016)

The information contained herein is based on several references and the present state of our knowledge. However the SDS does not always cover all information about the product, handle the product carefully. The information is intended to ordinary usage, in case of particular handlings, conduct appropriate safety measurements. The information herein is only provision of information, and it does not represent a guarantee the properties of the product. The Safety Data Sheet (SDS) is prepared based on JIS Z7253, and it has the same required elements on the Material Safety Data Sheet (MSDS) which is prepared based on JIS Z7250:2010.