

Printing date 16.12.2015

Version number 1

Revision: 16.12.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name:** OPTODYNE UV-3200**Article number:** UV3200**1.2 Relevant identified uses of the substance or mixture and uses advised against:**

No further relevant information available.

1.3 Details of the supplier of the safety data sheet**Manufacturer/Supplier:**

DAIKIN INDUSTRIES, LTD. CHEMICALS DIVISION:

Umeda Center Bldg., 4-12, Nakazaki-Nishi 2-chome, Kita-Ku, Osaka, JAPAN

Phone: (+81) 6-6373-4345 Fax: (+81) 6-6373-4281

Further information obtainable from: <http://www.daikin.com/>**1.4 Emergency telephone number:**

Japan: +81-6-6349-7521

China: +86-512-5-232-0949, +86-21-34151689

South Korea: +82-2-568-1722

Americas: +1-256-306-5000

Europe: +49-211-179 225-0

SECTION 2: Hazard identification**2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Carc. 2

H351 Suspected of causing cancer.



Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



Acute Tox. 4

H302 Harmful if swallowed.

Acute Tox. 4

H312 Harmful in contact with skin.

Acute Tox. 4

H332 Harmful if inhaled.

Skin Irrit. 2

H315 Causes skin irritation.

Eye Irrit. 2

H319 Causes serious eye irritation.

Skin Sens. 1

H317 May cause an allergic skin reaction.

Hazard description:

T Toxic

N Dangerous for the environment

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008:**

The product is classified and labelled according to the CLP regulation.

Signal word: Warning**Preccautionary statements:**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

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P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

EUH205 Contains epoxy constituents. May produce an allergic reaction.

SECTION 3: Composition/information on ingredients**Information on ingredients:**

Blended fluoroepoxy monomers	40-50%
Poly(Bisphenol-A-co-epichlorohydrin) Xi R36/38; Xi R43; N R51/53	30-40%
Aquatic Chronic 2, H411 Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	
Vinylcyclohexane diepoxide T R23/24/25; Xn R40 Carc. Cat. 3 Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 Carc. 2, H351	20-30%
Sb polymerization initiator	<5%
Others	<5%

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures**4.1 Description of first aid measures**

General information: Seek medical treatment.

After inhalation: Supply fresh air or oxygen; call for doctor.

After skin contact:

Remove contaminated clothes immediately.

Consult a doctor in case of complaints.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

Consult an ophthalmologist in case of complaints.

After swallowing: Do not induce vomiting; Consult a doctor immediately.

4.2 Most important symptoms and effects, both acute and chronic: Allergic reactions**4.3 Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing agents: Use fire extinguishing methods suitable for surrounding conditions.

5.2 Special hazards arising from the substance or mixture:

Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for firefighters:**Protective equipment:**

Wear fully protective suit.

Wear self-contained breathing apparatus and protective suit.

Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures:**

Ensure adequate ventilation before entering the area.

Keep out unauthorized persons.

6.2 Environmental precautions: Do not allow to enter sewers/surface or ground water.

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Trade name: OPTODYNE UV-3200**Safety glasses****Body protection:** Protective work clothing**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****General Information****Appearance****Form:**

Liquid

Colour:

Light yellow

Odour:

Characteristic

Odour threshold:

Not determined.

pH-value:

No further information available.

Melting point/Melting range:

No further information available.

Boiling point/Boiling range:

227 °C

No further information available.

Flash point:

134 °C (COC)

Not applicable.

Flammability (solid, gaseous):

Not applicable.

Decomposition temperature:

No further information available.

Self-igniting:

Product is not selfigniting.

Danger of explosion:

Product does not present an explosion hazard.

Explosion limits:**Lower explosive limit:**

No further information available.

Upper explosive limit:

No further information available.

Vapour pressure at 20 °C:

0,1 hPa

No further information available.

Density at 20 °C:1,26 g/cm³

No further information available.

Relative density

1.26

Vapour density

Not determined.

Evaporation rate

Not determined.

Solubility in / Miscibility with**water:**

No further information available.

Partition coefficient (n-octanol/water): No further information available.**Viscosity:****Dynamic:**

Not determined.

Kinematic:

Not determined.

9.2 Other information:

No further relevant information available.

SECTION 10: Stability and reactivity**10.1 Reactivity** No further relevant information available.**10.2 Chemical stability****Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.**10.3 Possibility of hazardous reactions:** May react drastically when exposed to acids, alkali, heat, light.**10.4 Conditions to avoid:** Keep away from heat, sparks, flame, high temperature.**10.5 Incompatible materials:** Acids, alkali**10.6 Hazardous decomposition products:**

Danger of forming toxic pyrolysis products.

Carbon monoxide and carbon dioxide

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Trade name: OPTODYNE UV-3200**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity***no data**Harmful if swallowed, in contact with skin or if inhaled.***LD/LC50 values relevant for classification:** *No further information available.***Primary irritant effect****Skin corrosion/irritation***Causes skin irritation.***Serious eye damage/irritation***Causes serious eye irritation.***Respiratory or skin sensitisation***May cause an allergic skin reaction.***CMR effects****Germ cell mutagenicity** *Based on available data, the classification criteria are not met.***Carcinogenicity***Suspected of causing cancer.***Reproductive toxicity** *Based on available data, the classification criteria are not met.***STOT-single exposure** *Based on available data, the classification criteria are not met.***STOT-repeated exposure** *Based on available data, the classification criteria are not met.***Aspiration hazard** *Based on available data, the classification criteria are not met.***Chronic study** *No further information available.***SECTION 12: Ecological information****12.1 Toxicity****Aquatic toxicity:** *No further relevant information available.***12.2 Persistence and degradability:** *No further relevant information available.***12.3 Bioaccumulative potential:** *No further relevant information available.***12.4 Mobility in soil:** *No further relevant information available.***Ecotoxicological effects:** *no data***Remark:** *Toxic for fish***Additional ecological information:****General notes:***Also poisonous for fish and plankton in water bodies.**Toxic for aquatic organisms***12.5 Results of PBT and vPvB assessment****PBT:** *No further relevant information available.***vPvB:** *No further relevant information available.***12.6 Other adverse effects:** *No further relevant information available.***SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation:***Must be specially treated adhering to official regulations.**Hand over to hazardous waste disposers.**Disposal must be made according to official regulations.***Uncleaned packaging****Recommendation:** *Disposal must be made according to official regulations.**** SECTION 14: Transport information****14.1 UN-Number:****ADR, IMDG, IATA****UN3082**

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Trade name: OPTODYNE UV-3200**14.2 UN proper shipping name:****ADR:**

3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

IMDG:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., MARINE POLLUTANT

IATA:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3 Transport hazard class(es):**ADR, IMDG, IATA****Class:**

9 Miscellaneous dangerous substances and articles.

14.4 Packing group:**ADR:**

III

14.5 Environmental hazards:**Marine pollutant:**

Yes

Special marking (ADR):

Symbol (fish and tree)

Special marking (IATA):

Symbol (fish and tree)

14.6 Special precautions for user:

Symbol (fish and tree)

EMS Number:

Warning: Miscellaneous dangerous substances and articles.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

F-A,S-F

Transport/Additional information:

Not applicable.

ADR

Avoid direct sunlight. Make sure of no damage, corrosion, leaks on the receptacles.

Limited quantities (LQ):

Take necessary measures for preventing cargo shift.

Excepted quantities (EQ)

5L

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

UN "Model Regulation":

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE,

LIQUID, N.O.S., 9, III

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

No further relevant information available.

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms

GHS07 GHS08 GHS09

Signal word Warning**Hazard-determining components of labelling:**

Vinylcyclohexane diepoxide

Poly(Bisphenol-A-co-epichlorohydrin)

Hazard statements

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H411 Toxic to aquatic life with long lasting effects.

Preccautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see on this label).
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations No further information available.**Other regulations, limitations and prohibitive regulations:** 1**SECTION 16: Other information**

The product is for the industrial use only. We do not guarantee the safety in case the product is used for the other purposes. When using the product for health-care application or food/feed application, consult us in advance. This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: EHS Department**Contact:** <http://www.daikin.com/>**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Flammable liquids, Hazard Category 3

Acute Tox. 3: Acute toxicity, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Carc. 2: Carcinogenicity, Hazard Category 2

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

*** Data compared to the previous version altered.**