

Revision: 27.10.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: <u>C6SFMA MONOMER</u> Article number: 362 EC number: 218-407-9 **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 DAIKIN AMERICA,INC.
20 Olympic Drive, Orangeburg, New York 10962 Phone: +1-800-365-9570

Further information obtainable from: http://www.daikin.com/ **1.4 Emergency telephone number:** +49-211-179 225-0 / office hour, +1-256-306-5000, +81-6-6349-7521

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008



STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements
Labelling according to Regulation (EC) No 1272/2008:
The substance is classified and labelled according to the CLP regulation.
Signal word: Warning
Precautionary statements:
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P314 Get medical advice/attention if you feel unwell.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 3: Composition/information on ingredients

Information on ingredients:

| 2144-53-8 3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctyl methacrylate | ≥98% |
|--|------|
| 123-31-9 1,4-Dihydroxybenzene Xn R22-40-68; Xi R41; Xi R43; N R50 | <1% |
| Carc. Cat. 3, Muta. Cat. 3 Muta. 2, H341; Carc. 2, H351 Eye Dam. 1, H318 Aquatic Acute 1, H400 | |
| Acute Tox. 4, H302; Skin Sens. 1, H317 150-76-5 4-Methoxyphenol Xn R22; Xi R36; Xi R43 | <1% |
| Acute Tox. 4, H302; Eye Irrit. 2, H319; Skin Sens. 1, H317 Identification number(s) EC number: 218-407-9 | |



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SECTION 4: First aid measures

4.1 Description of first aid measures

General information: No special measures required.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water.

After swallowing: If symptoms persist consult a doctor.

4.2 Most important symptoms and effects, both acute and chronic: No further relevant information available.

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: CO2, powder or water spray. Fight larger fire with alcohol resistant foam. 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.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures: Wear protective clothing.

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

6.3 Methods and material for containment and cleaning up:

For a small amount of leakage: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders) or collect in an empty container that can be sealed tightly.

6.4 Reference to other sections: No dangerous substances are released.

SECTION 7: Handling and storage

7.1 Precautions for safe handling: Ensure good ventilation/exhaustion at the workplace.
Information about fire - and explosion protection: No special measures required.
7.2 Conditions for safe storage, including any incompatibilities:
Storage

Requirements to be met by storerooms and receptacles: No special requirements. Information about storage in one common storage facility: Not required. Further information about storage conditions: Keep container tightly sealed. 7.3 Specific end use(s): No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters No further information available. **Ingredients with limit values that require monitoring at the workplace:** Not required. **Additional information:** The lists valid during the making were used as basis.

8.2 Exposure controls Personal protective equipment General protective and hygienic measures: Wash hands before breaks and at the end of work. Do not eat or drink while working. Keep away from tobacco products. Respiratory protection: Suitable respiratory protective device recommended. Revision: 27.10.2015



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Protection of hands:

Impervious gloves



Protective gloves

Material of gloves: Synthetic rubber gloves *Penetration time of glove material The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed. Eye protection:*



Goggles are recommended during refilling

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

| Appearance Form: Colour: | Liquid Colourless |
|---|---|
| Odour: | Aromatic |
| Odour threshold: | Not determined. |
| pH-value: Melting point/Melting range: Boiling point/Boiling range: | Not applicable. No further information available. 92 °C (8mmHg(1.07kPa)) No further information available. |
| Flash point: | 109 °C Not applicable. |
| Flammability (solid, gaseous): | Not applicable. |
| Decomposition temperature: | No further information available. |
| Self-igniting: Danger of explosion: | Not determined. Product does not present an explosion hazard. |
| Explosion limits: Lower explosive limit: Upper explosive limit: | Not applicable. No data Product does not present an explosion hazard. |
| Vapour pressure: | No further information available. |
| Density at 25 °C: | 1,50 g/cm ³ No further information available. |
| Relative density | Not determined. |
| Vapour density | Not determined. |
| Evaporation rate | Not determined. |
| Solubility in / Miscibility with water at 20 °C: | 0,388 mg/l |
| Partition coefficient (n-octanol/wat Viscosity: | ter): No further information available. |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| 9.2 Other information: | Solubility : >50mass% (Acetone , DMSO, methanol) |



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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: Reacts with peroxides and other radical forming substances.
10.4 Conditions to avoid: No further relevant information available.
10.5 Incompatible materials: No further relevant information available.
10.6 Hazardous decomposition products:
Hydrogen fluoride
Fluorophosgene in contact with naked flame or red hot objects.

SECTION 11: Toxicological information

11.1 Information on toxicological effects Acute toxicity LD/LC50 values relevant for classification:

2144-53-8 3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctyl methacrylate

Oral LD50 >2000 mg/kg (Rat) Primary irritant effect Skin corrosion/irritation Slightly irritant. Serious eye damage/irritation Slightly irritant. Respiratory or skin sensitisation No sensitizing effect. Additional toxicological information: NOAEL 5mg/kg(28days rat) CMR effects Germ cell mutagenicity Ames Assay - Negative Carcinogenicity Based on available data, the classification criteria are not met. 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

2144-53-8 3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctyl methacrylate

Oral NOAEL 5 mg/kg bw/d (Rat) May cause damage to organs through prolonged or repeated exposure. Aspiration hazard Based on available data, the classification criteria are not met. Chronic study

2144-53-8 3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctyl methacrylate

Oral 28 days 5 mg/kg/day (Rat) NOAEL

SECTION 12: Ecological information

12.1 Toxicity Aquatic toxicity:

2144-53-8 3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctyl methacrylate
EC50/48h 0,0376 mg/l (Daphnia)
EC50/72h >0,013 mg/l (Daphnia)
LC50/96h 15 mg/l (Fish)
12.2 Persistence and degradability:
This product will persist in the environment. Handle with care in case of accidental release or disposal.
Other information: The product is slightly biodegradable.
12.3 Bioaccumulative potential: No further relevant information available.
12.4 Mobility in soil: No further relevant information available.



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Additional ecological information:General notes:Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.12.5 Results of PBT and vPvB assessmentPBT: 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:

Landfill disposal is recommended. In case of incineration, the temperature must be higher than 800 °C. Treat exhaust gas such as HF in a suitable way. Disposal must be made according to official regulations. Wear appropriate protective devices.

Uncleaned packaging

Recommendation: Disposal must be made according to official regulations. Empty contaminated packagings thoroughly.

SECTION 14: Transport information

| 14.1 UN-Number: ADR, ADN, IMDG, IATA 14.2 UN proper shipping name: | Not applicable | |
|--|--|--|
| ADR, ADN, IMDG, IATA 14.3 Transport hazard class(es): | Not applicable | |
| ADR, ADN, IMDG, IATA | | |
| Class: | Not applicable | |
| 14.4 Packing group: | | |
| ADR, IMDG, IATA | Not applicable | |
| 14.5 Environmental hazards: | | |
| Marine pollutant: | No | |
| 14.6 Special precautions for user: | Not applicable. | |
| 14.7 Transport in bulk according to Annex II of | | |
| MARPOL73/78 and the IBC Code: | Not applicable. | |
| Transport/Additional information: | Not dangerous according to the above specifications. | |
| UN "Model Regulation": | - | |

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Labelling according to Regulation (EC) No 1272/2008 The substance is classified and labelled according to the CLP regulation. Hazard pictograms



Signal word Warning Hazard statements H373 May cause damage to organs through prolonged or repeated exposure. Precautionary statements P260 Do not breathe dust/fume/gas/mist/vapours/spray. P314 Get medical advice/attention if you feel unwell.



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P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
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
EINECS: European Inventory of Existing Commercial Chemical Substances
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
* Data compared to the previous version altered.