

Printing date 04.07.2019

Version number 1

Revision: 04.07.2019

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name: ZEFFLE GK-500****Article number: GK500****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**

Flam. Liq. 3 H226 Flammable liquid and vapour.



STOT SE 3 H336 May cause drowsiness or dizziness.

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**Precautionary statements:**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241 Use explosion-proof electrical/ventilating/lighting equipment.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P405 Store locked up.

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

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

Tetrafluoroethylene copolymer 55-65%

CAS: 123-86-4 n-Butyl acetate 35-45%

Flam. Liq. 3, H226

STOT SE 3, H336

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

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SECTION 4: First aid measures**4.1 Description of first aid measures****General information:** Seek immediate medical advice.**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Remove contaminated clothes immediately.

After contact with the molten product, cool rapidly with cold water.

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

If symptoms persist consult a doctor.

Rinse mouth with water. Do not induce vomiting.

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

Vapors and fumes liberated during hot processing with this material may cause flu-like symptoms (chills, fever and, sometimes, cough) that may not occur until several hours after exposure and typically pass within about 36 to 48 hours.

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

Dry sand

Fire-extinguishing powder

Alcohol resistant foam

Water spray

Water haze

For safety reasons unsuitable extinguishing agents: Water with full jet**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: Remove receptacles from area of fire if possible.**Protective equipment:**

Do not inhale explosion gases or combustion gases.

Wear self-contained breathing apparatus and protective suit.

Wear fully protective suit.

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

Wear appropriate protective devices (See Section 8 Exposure Controls/Personal Protection).

Avoid contact with eyes and skin.

Do not inhale the product.

Keep away from ignition sources.

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.

Do not flush with water or aqueous cleansing agents

6.4 Reference to other sections:

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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SECTION 7: Handling and storage**7.1 Precautions for safe handling:***Use only in well ventilated areas.**Extractors are required on all machines used for thermal processing or powder handling processes.***Information about fire - and explosion protection:***Keep ignition sources away - Do not smoke.**Protect against electrostatic charges.***7.2 Conditions for safe storage, including any incompatibilities:****Storage****Requirements to be met by storerooms and receptacles:***Make floor, wall and columns of the storage location fire-resistant construction. Make beams noncombustible construction.**Store in a cool and dry location.**Provide solvent resistant, sealed floor.***Information about storage in one common storage facility:** *Store away from oxidising agents.***Further information about storage conditions:***Keep container tightly sealed.**Protect from heat and direct sunlight.**Store containers in a well ventilated area.**Store under lock and key and with access restricted to technical experts or their assistants only.***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****Ingredients with limit values that require monitoring at the workplace:****CAS: 123-86-4 n-Butyl acetate**OEL (Japan) 475 mg/m³, 100 ppmPEL (USA) 710 mg/m³, 150 ppmREL (USA) Short-term value: 950 mg/m³, 200 ppmLong-term value: 710 mg/m³, 150 ppmTLV (USA) Short-term value: 950 mg/m³, 200 ppmLong-term value: 713 mg/m³, 150 ppm**8.2 Exposure controls****Personal protective equipment****General protective and hygienic measures:***Wash hands before breaks and at the end of work.**Keep away from tobacco products.**Do not eat or drink while working.***Respiratory protection:***Use respiratory protective device with filters for organic and acid gas (or airline respirators in some cases) if formation of toxic gases is possible while the product is heated.***Protection of hands:**

Protective gloves

Material of gloves: Rubber**Penetration time of glove material***The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.*

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Eye protection:



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: Aromatic

pH-value: No further information available.

Melting point/freezing point: No further information available.

Initial boiling point and boiling range: 124-125 °C (As n-butyl acetate)

Flash point: 29 °C (SCC)

Auto-ignition temperature: Product is not selfigniting.

Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Explosion limits:

Lower explosive limit: 1.7 Vol % (As n-butyl acetate)

Upper explosive limit: 7.6 Vol % (As n-butyl acetate)

Vapour pressure: -

Density:

Relative density at 20 °C 1.12

Solubility in / Miscibility with water:

No further information available.

Partition coefficient: n-octanol/water: No further information available.

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: To avoid thermal decomposition do not overheat.

10.3 Possibility of hazardous reactions: No dangerous reactions known under normal conditions of use.

10.4 Conditions to avoid: Keep away from heat, sparks, flame, high temperature.

10.5 Incompatible materials: Oxidizing agents

10.6 Hazardous decomposition products: Danger of toxic fluorine based pyrolysis products.

SECTION 11: Toxicological information**11.1 Information on toxicological effects**

Acute toxicity no data

LD/LC50 values relevant for classification: No further information available.

Primary irritant effect

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/irritation Based on available data, the classification criteria are not met.
after inhalation: No further information available.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

CMR effects

Carcinogenicity Based on available data, the classification criteria are not met.

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Reproductive toxicity Based on available data, the classification criteria are not met.

STOT-single exposure

May cause drowsiness or dizziness.

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.

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.

12.5 Results of PBT and vPvB assessment

PBT:

No further relevant information available.

Not applicable.

vPvB:

No further relevant information available.

Not applicable.

12.6 Other adverse effects: No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation: 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

UN1263

14.2 UN proper shipping name:

ADR:

1263 PAINT, solution

IMDG, IATA

PAINT, solution

14.3 Transport hazard class(es):

ADR, IMDG, IATA



Class:

3 Flammable liquids.

Label:

3

14.4 Packing group:

ADR, IMDG, IATA

III

14.5 Environmental hazards:

Marine pollutant:

No

14.6 Special precautions for user:

Warning: Flammable liquids.

Danger code (Kemler):

30

EMS Number:

F-E,S-D

14.7 Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code:

Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ):

5L

Transport category:

3

Tunnel restriction code:

D/E

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UN "Model Regulation":

UN1263, PAINT, solution, 3, III

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

Hazard pictograms



GHS02 GHS07

Signal word Warning

Hazard-determining components of labelling:

n-Butyl acetate

Hazard statements

H226 Flammable liquid and vapour.

H336 May cause drowsiness or dizziness.

Precautionary statements

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P405 Store locked up.

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

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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 – Category 3

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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