

SAFETY DATA SHEET

according to Regulation (EC) No.1907/2006 (REACH)

Date of issue: 07 July 2015

Version: 1.0 EN

Valid from 07 July 2015

1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier:

Group Safety Data Sheet for the following Products:

Trade Name: ScreenFect®A; ScreenFect®siRNA; ScreenFect®mRNA; ScreenFect®A-plus; ScreenFect®MEF; ScreenFect®65; ScreenFect®R&D reagent

1.2. Relevant identified uses of the substance or mixture and uses advised against

- **Identified uses:** Laboratory reagents/TransfectionReagents

- **Uses advised against:** Other uses than stated

1.3. Details of the supplier of the safety data sheet

Name ScreenFect GmbH

Full address

Hermann-von-Helmholtz-Platz 1
D-76344 Eggenstein-Leopoldshafen (Geb. 717)
Germany

Telephone No. and e-mail of the competent person

Tel: +49(0)721-608-29113

Fax: +49(0)724-73983012

mail: info@ScreenFect.com

www.ScreenFect.com

· **Informing department:**

Research and Development Department

Tel: +49(0)721-608-29008 /+49(0)721-608-29113

mail: info@ScreenFect.com

1.4. Emergency telephone number

National Poisons Information Service (Birmingham Unit)
+44 121 507 4123

2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to CLP-Reg. 1272/2008 : *The product is not classified according to the CLP regulation. The classification criteria are not fulfilled*

Summary of most important

Adverse physicochemical effects: *No further relevant information available.*

Adverse human health effects and symptoms: *No further relevant information available.*

Adverse environmental effects: *No further relevant information available.*

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2.2. Label elements

Reg. 1272/2008/ (substances)/ 1999/45/EC (mixtures): Not applicable since no classification

Pictograms/Symbols: None

Signal word/indication of danger: None

Hazard statements/R-phrases: None

Precautionary statements/S-phrases: None

2.3. Other hazards: *No further relevant information available.*

3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances : The product is a mixture

3.2. Mixtures

Relevant ingredients:

Chemical Name	EC-No	CAS-No	Registration No.	Concentration (%)	Classification according Regulation (EC) No 1272/2008 [CLP]		
Acetic acid	200-580-7	64-19-7	01-211-94753 28-30-XXX	0.5-1.5%	Flam. Liq.3 Met.Corr 1 Skin Corr.1 A	H226 Flammable liquid and vapour H390 May be corrosive to metals H314 Causes severe skin burns and eye damage	Skin Corr. 1A; H314: C ≥ 90 % Skin Corr. 1B; H314: 25 % ≤ C < 90 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 %

The product is an aqueous solution and does not contain within our current knowledge further substances which are hazardous, PBTs or vPvBs in relevant concentrations. Acetic acid has an EU OEL.

4: FIRST-AID MEASURES

4.1. Description of first aid measures

- **General notes** No special measures required.
- **Following inhalation** Supply fresh air.
- **Following skin contact** Instantly wash with water and soap and rinse thoroughly.
- **Following eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.
- **Following ingestion** Seek immediate medical advice.
- **Self protection of the first aider** No special measures required.
- **Information for doctor** No particular measures are known – symptomatic treatment.

4.2. Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3. Indication of any immediate medical attention and special treatment needed

No further relevant information available.

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5: FIREFIGHTING MEASURES

5.1. Extinguishing media

The product is not flammable

Suitable extinguish media: *In case of fire use water spray, foam, dry chemical or carbon dioxide*

· **Unsuitable extinguishing agents:** *Highpressure water spray*

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5.2. Special hazards arising from the substance or mixture: *No further relevant information available.*

5.3. Advice for firefighters: .

6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective gloves

Avoid contact with skin and eyes

6.2. Environmental precautions : *Dilute with much water.*

6.3. Methods and material for containment and cleaning up : *Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).*

6.4. Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Keep away from heat and direct sunlight.

No special precautions necessary if used correctly.

Advice on general occupational hygiene:

The usual precautionary measures should be adhered to general rules for handling chemicals.

Do not eat, drink and smoke in work area.

Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

· **Information about protection against explosions and fires:** *No special measures required.*

7.2. Conditions for safe storage, including any incompatibilities:

Keep containers tightly closed and dry, store at 2 - 8 °C.

Information about storage in one common storage facility: *Store away from foodstuffs.*

Further information about storage conditions: *None.*

7.3. Specific end use(s): *No further relevant information available.*

8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 OELs for acetic acid:

OEL (Germany; TRGS 900)	25 mg/ m ³ = 10 ml/ m ³ (ppm)
IOELV (European Union; TRGS 900)	
Short Term Exposure Limits (Germany and EU; TRGS 900)	50 mg/ m ³ = 20 ml/ m ³ (ppm)

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DNELs inhalation for acetic acid : 25 mg/ m³ (*Safety Data Sheet of the supplier*).

PNECs for acetic acid (*Safety Data Sheet of the supplier*):

- Sewage treatment: 85 mg/l
- Fresh water: 3.085 mg/l
- Fresh water sediment: 11.36 mg/l
- Marine water: 0.3085 mg/l
- Marine sediment: 1.136 mg/l

8.2 Exposure controls

8.2.1 Appropriate engineering controls: *No specific measures necessary under the conditions of the intended/identified use. (see Section 1.2)*

Components with limit values: Acetic acid

The product does not contain relevant quantities of the materia acetic acid with an OEL-value that has to be monitored at the workplace, since in the aqueous solution with very low acetic acid content (0.5-1.5 %) does not exhibit an appreciable vapour concentration under the conditions of the intended and identified use. Thus monitoring of the acetic acid vapour concentration at the workplace is not deemed necessary

8.2.2 Individual protection measures, such as personal protection equipment

a) Eye/face protection:



Safety glasses recommended during refilling.

b) Skin protection:



· Protection of hands:

Protective gloves.:The glove material has to be impermeable and resistant to the product/ mixture.

· Suitable materials: *Nitril, Neopren, Butyl and Viton gloves*

· Not suitable are gloves made of the following materials: *Thick gloves; Leather gloves*

· Body protection: *Protective work clothing.*

c) Respiratory protection:

Protective equipment: *Not required.*

d) Thermal hazards: *Not applicable*

8.2.3 Environmental exposure controls: *Not necessary due to the very low concentrations of the ingredients and since none of the ingredient is classified for environmental hazards.*

9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

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The mixture is an aqueous solution with very low concentrations of ingredients.

- (a) Appearance: Liquid; colourless
- (b) Odour: odourless
- (c) Odour threshold (acetic acid): 0.2- 100.1 ppm (safety Data Sheet of the supplier)
- (d) pH (25°C): 5.5+- 0.5
- (e) Melting point/freezing point : not determined
- (f) Initial boiling point and boiling range: ca. 100 °C
- (g) Flash point: not applicable
- (h) Evaporation rate: no data available
- (i) Flammability (solid, gas): not applicable
- (j) Upper/lower flammability or explosive limits: not applicable
- (k) Vapour pressure of acetic acid (Pa at 20°C): 16 hPa (SDS of supplier)
- (l) Vapour density: not determined
- (m) Relative density: not determined
- (n) Solubility(ies): fully miscible with water

- (o) Partition coefficient: n-octanol/water: not applicable
- (p) Auto-ignition temperature: not applicable
- (q) Decomposition temperature: not applicable
- (r) Viscosity: not determined
- (s) Explosive properties: not applicable
- (t) Oxidising properties: not applicable

9.2. Other information: Solvent content: 0.0 %. *No further relevant information available.*

10: Stability and Reactivity

- 10.1 Reactivity:** Does not react in a hazardous manner when used for intended uses
- 10.2 Chemical stability:** Chemically stable. *No decomposition if used according to specifications.*
- 10.3 Possibility of hazardous reactions:** *No hazardous reactions known*
- 10.4 Conditions to avoid:** *Protect from heat and/or direct insolation*
- 10.5 Incompatible materials:** *strong oxidizing agents*
- 10.6 Hazardous decomposition products:** Does not decompose when used for intended uses

11: Toxicological Information

11.1 Information on Toxicological Effects

The mixture as a whole has not been tested with respect to toxicological effects.

There is information available on the ingredient Acetic acid

a) Acute toxicity: No classification of the product according to the CLP mixture criteria (Calculation method)

Acetic acid: no classification

b) Skin corrosion/irritation: Slight irritation effects possible, but not sufficient for classification:
According to the criteria of the CLP-Regulation (EU) No 1272/2008, the mixture is not classified as corrosive nor as Skin irritant, since the concentration of the corrosive component acetic acid is distinctly below the Specific Concentration Limits (SCLs) : maximum concentration of acetic acid 1.5 % versus SCLs of 25 % for Skin corrosivity and 10% for Skin irritation.

c) Serious eye damage/ irritation: No classification.

Slight irritation effects possible, but not sufficient for classification.

There are the same Specific Concentration Limits as for Skin Corrosion/Irritation.

Information on Acetic acid:

d) Respiratory or skin sensitisation: Not classified based on available information

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e) Germ cell mutagenicity: Not classified based on available information

f) Carcinogenicity: Not classified based on available information

g) Reproductive toxicity: Not classified based on available information

h) STOT-single exposure: In principle Irritation of respiratory tract is possible depending on the concentration of acetic acid: In the product there is only very low concentration, thus no respiratory irritation.

i) STOT-repeated exposure: Not classified based on available information

h) Aspiration hazard: Not applicable based on available information

Summary evaluation: The product is not regarded as hazardous and is not classified as hazardous according to the CLP/GHS criteria based on current knowledge on the ingredients

11.1.12 Mixture versus substance information: The mixture as whole has not been tested, but information on the ingredient acetic acid is available (see 11.1 a)- h).

11.1.13 Other information: No further relevant information available

12: Ecological Information

12.1 Toxicity

Acute and chronic aquatic toxicity:

No test data available for the product as a whole.

The component acetic acid is not classified as Aquatic hazardous based on data. In addition its concentration in the product is very low and thus is not a relevant ingredient concerning aquatic toxicity/hazard

12.2 Persistence and degradability

The component acetic acid is rapidly degradable

12.3 Bioaccumulative potential

Acetic acid: Partition coefficient n-octanol/water (log Kow): ≤ 4

12.4 Mobility in soil: No further relevant information available

12.5 Results of PBT vPvB assessment: To our current knowledge this product does not contain any substances that are assessed to be PBT or vPvB.

12.6 Other adverse effects: No further relevant information available

13: Disposal Considerations

Waste treatment methods

· **Recommendation** Smaller quantities can be disposed with household waste.

· **European waste catalogue:**

18 00 00	WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care)
18 02 00	Wastes from research, diagnosis, treatment or prevention of disease involving animals
18 02 03	Wastes whose collection and disposal is not subject to special requirements in order to prevent infection

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleaning agent:** Water, if necessary with cleaning agent.

14: TRANSPORT INFORMATION

14.1 UN number: none

14.2 UN proper shipping name: none

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14.3 Transport hazard class(es): none

14.4 Packing group: not applicable

14.5 Environmental hazards:

- The product is not environmentally hazardous.

- No marine pollutant

14.6 Special provisions for user: not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code: not applicable

15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

15.2 Chemical safety assessment: not performed

16: OTHER INFORMATION

a) Indication of changes in the SDS: Not applicable

b) 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)

CAS: Chemical Abstracts Service (division of the American Chemical Society)

CLP: Regulation (EU) No 1272/2008 on Classification, Labelling and Packaging of Substances and Mixtures

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

Flam.Liq. : Flammable Liquid (code according to CLP)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Code for Dangerous Goods

Met.Corr. Corrosive to metals(code according to CLP)

IOELV: Indicative Occupational Exposure Limit

OEL: Occupational Exposure Limit

PBT: Persistent, Bioaccumulative, Toxic

PNEC: Predicted No Effect Concentration

REACH: Regulation (EU) No 1907/2006

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

Skin Corr.: Skin Corrosion (code according to CLP)

TRGS Technical Rules for Hazardous Substances (Germany)

vPvB: very Persistent very Bioaccumulative

c) Key literature references and sources: Safety Data Sheets from supplier(s) of the ingredients

d) Method of evaluation In case of mixtures: see chapter 11 .1

e) List of relevant hazard statements (number and full text): not necessary

f) Advice on training: Training as required by national and company rules