SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifier:
Trade name: Stopbuffer

1.2 Relevant identified uses of the substance or mixture and uses advised against:
Product category: PCO Other
Application of the substance / the mixture: Professional use only

1.3 Details of the supplier of the safety data sheet:
Manufacturer / Importer / Supplier:
Sanquin Blood Supply Foundation
Plesmanlaan 125
1066 CX Amsterdam
The Netherlands
Phone: +31.20.512.3599
Fax: +31.20.512.3570
E-mail: reagents@sanquin.nl
Website: www.sanquinreagents.com

Further information obtainable from: Product safety department.

1.4 Emergency telephone number:
+31 20 512 3599
This telephone number can be reached during office hours.

SECTION 2: Hazards Identification

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

GHS07
Eye Irrit. 2 H319 Causes serious eye irritation.

2.2 Label elements:
Labelling according to Regulation (EC) No 1272/2008:
The substance is classified and labelled according to the CLP regulation.
Hazard pictograms: GHS07
Signal word: Warning
Hazard statements:
H319 Causes serious eye irritation.
Precautionary statements:
P280 Wear eye protection / face protection.
P264 Wash hands thoroughly after handling.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/-
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards:
Results of PBT and vPvB assessment:
PBT: Not applicable.
vPvB: Not applicable.

SECTION 3: Composition/Information on Ingredients

3.2 Chemical characterisation: Mixtures:
Description: Mixture of substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>Components</th>
<th>Oxalic acid dihydrate</th>
<th>≤ 2.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 6153-56-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EINECS: 205-534-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Index number: 607-006-00-8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional information: For the wording of the listed hazard phrases See section 16.
SECTION 4: First Aid Measures

4.1 Description of first aid measures:
General information:
Immediately remove any clothing soiled by the product. Take affected persons out of danger area and lay down.
After inhalation:
Remove the victim into fresh air, and keep at rest in a position that facilitates breathing. In case of unconsciousness place patient stably in side position for transportation.
After skin contact:
Wash with (warm) water and soap. If skin irritation continues, consult a doctor.
After eye contact:
If possible, remove contact lenses. Rinse opened eye for several minutes (at least 15 minutes) under running water. If symptoms persist, consult a doctor.
After ingestion:
Do not induce vomiting. Rinse mouth and then drink plenty of water. If victim feels unwell, seek medical advice.

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.

SECTION 5: Firefighting Measures

5.1 Extinguishing media:
Suitable extinguishing agents:
Use fire extinguishing methods suitable to surrounding conditions. All extinguishing media are possible.

5.2 Special hazards arising from the substance or mixture:
During heating or in case of fire poisonous gases are produced.

5.3 Advice for firefighters:
Protective equipment:
Mouth respiratory protective device. Wear self-contained respiratory protective device.
Additional information: Cool endangered tanks with water spray.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:
Ensure adequate ventilation Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:
Remainder dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to section 13.

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 disposal information.

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: No special measures required.
Trade name: Stopbuffer

(Contd. of page 2)

SECTION 8: Exposure Controls/Personal Protection

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

8.1 Control parameters:

Ingredients with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Respiratory protection:

Not required.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands:

Protective gloves

Use protective gloves to DIN EN374-3

Only use chemical-protective gloves with CE-labelling of category III.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm

Penetration time of glove material:

Value for the permeation: Level ≤ 480

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Tightly sealed goggles

Body protection: Protective work clothing

Limitation and supervision of exposure into the environment: Do not allow to enter in surface water or soil.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties:

General Information:

Appearance:

Form: Liquid.

Colour: Colourless.
Odour: Odourless.
Odour threshold: Not determined.

pH-value at 20 °C: 1.5

Change in condition
Melting point/Melting range: Not determined.
Boiling point/Boiling range: 100 °C

Flash point: Not applicable.

Flammability (solid, gaseous): Not applicable.
Ignition temperature: Not determined
Decomposition temperature: Not determined.
Self-igniting: Product is not self-igniting.
Danger of explosion: Product does not present an explosion hazard.

Explosion limits:
Lower: Not determined.
Upper: Not determined.

Vapour pressure at 20 °C: 23 hPa
Density at 20 °C: 1.018 g/cm³
Relative density: Not determined.
Vapour density: Not determined.
Evaporation rate: Not determined.

Solubility in / Miscibility with:
Water: Fully miscible.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:
Dynamic: Not determined.
Kinematic: Not determined.

Solvent content:
Solids content: Not determined
Oxidizing properties: Does not contain oxidizing properties.

9.2 Other information: No further relevant information available.

SECTION 10: Stability and Reactivity

10.1 Reactivity: Stable under recommended conditions.
10.2 Chemical stability:
Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
10.3 Possibility of hazardous reactions: No dangerous reactions known.
10.4 Conditions to avoid: No further relevant information available.
10.5 Incompatible materials: No further relevant information available.
10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects:
Acute toxicity: Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50/LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>54000 mg/kg (Rat)</td>
</tr>
<tr>
<td>Dermal</td>
<td>55000 mg/kg</td>
</tr>
</tbody>
</table>

(Contd. on page 5)
SECTION 12: Ecological Information

12.1 Toxicity:
The product components are not classified as dangerous for the environment or the quantities are not relevant. Larger or frequent spills can be dangerous or harmful to the environment.

Aquatic toxicity:

<table>
<thead>
<tr>
<th>Compound</th>
<th>LC50/48h (Leuciscus idus)</th>
<th>EC50/48h (Daphnia Magna)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6153-56-6 Oxalic acid dihydrate</td>
<td>160 mg/l</td>
<td>137 mg/l</td>
</tr>
</tbody>
</table>

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.

Additional ecological information:

General notes: Generally not hazardous for water

12.5 Results of PBT and vPvB assessment:
PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects: No further relevant information available.

SECTION 13: Disposal Considerations

13.1 Waste treatment methods:
Recommendation:
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
After prior treatment product has to be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste.

Contaminated packaging:
Recommendation:
Disposal must be made according to official regulations.
Packaging may be reused or recycled after cleaning.

Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport Information

14.1 UN-Number:
ADR, RID, ADN, IMDG, IATA: Void

14.2 UN proper shipping name:
ADR, RID, ADN, IMDG, IATA: Void
14.3 Transport hazard class(es):
ADR, RID, ADN, IMDG, IATA
Class: Void

14.4 Packing group:
ADR, RID, ADN, IMDG, IATA
Void

14.5 Environmental hazards:
Not applicable.

14.6 Special precautions for user:
Not applicable.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:
Not applicable.

UN "Model Regulation": Void

SECTION 15: Regulatory Information

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

Directive 2012/18/EU:
Named dangerous substances - ANNEX I: None of the ingredients are listed.
REGULATION (EC) No 1907/2006 ANNEX XVII: Conditions of restriction: 3
National regulations: Not applicable

Water hazard class: Generally not hazardous for water.

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

SECTION 16: Other Information

This information is based on our present knowledge. This shall not constitute a guarantee for any properties of the product and shall not establish a legally valid contractual relationship.

Relevant phrases:
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H318 Causes serious eye damage.

Training hints: Take care of good information, instruction and training for users.

Abbreviations and acronyms:
ADN: Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
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
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (Division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBST: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
EC50: Effective Concentration, 50 percent
IOELV: Indicative Occupational Exposure Limit Values
mPa.s: milliPascal per second
Acute Tox. 4: Acute toxicity – Category 4
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

References:
This information is based on the current available data (suppliers of raw materials, chemistry maps, Annex VI)
See also the internet site: http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database

Revisions were made in sections marked with *.

Disclaimer:
The information provided in this Material Safety Data Sheet has been prepared with the utmost care and corresponds to the most recent information available to the supplier on the date of publication mentioned in the footer of every page. The contents of this Material Safety Data Sheet should not be considered as a guarantee for certain product properties or fitness for particular purposes. It is the obligation of the user to determine whether the product is suitable for the specific
Trade name: Stopbuffer

(Contd. of page 6)

purpose, intended use and the method of application. This Safety Data Sheet only relates to the product described and
does not apply to any not defined use or the use of the product in combination with other materials, substances or
products. It is the responsibility of the user to use and handle the product with care and to comply with all applicable laws
and regulations. The supplier accepts no liability for direct or indirect damages resulting from improper use of this Material
Safety Data Sheet and / or the products described therein.