

1. Identification of the substance/mixture and of the company/undertaking

| | |
|---|-------------------------------------|
| Product name | STANDOFLEET MULTITONING ADDITIVE |
| Product code | 4024669952087 |
| Intended use of the substance/preparation | Intermediate |
| Company/Undertaking Identification | |
| Producer/Supplier | STANDOX GmbH |
| Street/Box | Christbusch 45 |
| Nat.-Code/Postal code/City | DE 42285 Wuppertal |
| Telephone | +49 (0)202 2530-0 |
| Information on SDS | |
| Telephone | +49 (0)202 2530-2385 |
| E-mail address | sds-information@deu.standex.com |
| Emergency Information | |
| Emergency telephone number | +44 (0)845 600-6640 |
| For further information, please also consult our Internet site | |
| http://www.standex.com | |

2. Hazards identification

The mixture is classified as dangerous in accordance with Directive 1999/45/EC.

Human health hazards

Classification : Toxic to Reproduction Category 2; Harmful; dangerous for the environment; Flammable; Flammable. Harmful by inhalation, in contact with skin and if swallowed. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. May impair fertility. May cause harm to the unborn child. Repeated exposure may cause skin dryness or cracking.

Special hazard instructions for humans and environment

None known.

3. Composition/information on ingredients

Chemical characterization

Mixture of synthetic resins and solvents

Hazardous components

Substances presenting a health or environmental hazard within the meaning of the DSD 67/548/EEC referring to 1272/ 2008 annex VI.

| EC-No. | CAS-No. | Chemical Name | Concentration | Classification |
|-----------|----------|------------------------|-------------------|--|
| 204-658-1 | 123-86-4 | n-butyl acetate | 65.00 - < 75.00 % | R10 R66 R67 |
| 204-634-0 | 123-54-6 | pentane-2,4-dione | 7.00 - < 10.00 % | R10 Xn; R22 |
| 203-550-1 | 108-10-1 | Methyl isobutyl ketone | 7.00 - < 10.00 % | F; R11 Xn; R20 Xi; R36/37 R66 |

| EC-No. | CAS-No. | Chemical Name | Concentration | Classification |
|-----------|-----------|---------------------------------------|-----------------|---|
| 215-535-7 | 1330-20-7 | xylene | 5.00 - < 7.00 % | R10 Xn; R20/21 Xi; R38 |
| 202-849-4 | 100-41-4 | ethylbenzene | 1.00 - < 2.00 % | F; R11 Xn; R20 |
| 201-039-8 | 77-58-7 | dibutylbis((1-oxododecyl)oxy)stannane | 0.50 - < 1.00 % | Xi; R36/38 T; R48/25 N; R50/53 Xn; R22 Repr.Cat.2; R60 Repr.Cat.2; R61 Mut.Cat.3; R68 |

Up to the given revision date of this safety data sheet no REACh registration numbers are assigned to the chemical substances used in this preparation.

Additional advice

See full text of R-phrases in chapter 16.

4. First aid measures

General advice

When symptoms persist or in all cases of doubt seek medical advice. Never give anything by mouth to an unconscious person.

Inhalation

Avoid inhalation of vapour or mist. Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

Skin contact

Do NOT use solvents or thinners. Take off all contaminated clothing immediately. Wash skin thoroughly with soap and water or use recognized skin cleanser. If skin irritation persists, call a physician.

Eye contact

Remove contact lenses. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Seek medical advice.

Ingestion

If swallowed, seek medical advice immediately and show this container or label. Do NOT induce vomiting. Keep at rest.

5. Fire-fighting measures

Hazardous combustion products

Fire will produce dense black smoke containing hazardous combustion products (see heading 10). Exposure to decomposition products may be a hazard to health.

Fire and Explosion Hazards

Flammable liquid. Vapours may form explosive mixtures with air. Remove all sources of ignition.

Suitable extinguishing media

Universal aqueous film-forming foam, Carbon dioxide (CO₂), Dry chemical, Water spray.

Extinguishing media which shall not be used for safety reasons

High volume water jet

Special Protective Equipment and Fire Fighting Procedures

Wear as appropriate: Full protective flameproof clothing. Wear self contained breathing apparatus for fire fighting if necessary. In the event of fire, cool tanks with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Additional advice

Cool closed containers exposed to fire with water spray.

6. Accidental release measures

Personal precautions

Keep in a well-ventilated place. Keep away from sources of ignition. Comply with safety directives (see chapters 7 and 8). Do not inhale vapours.

Environmental precautions

Do not let product enter drains. Notify the respective authorities in accordance with local law in the case of contamination of rivers, lakes or waste water systems.

Methods for cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations. Clean preferably with a detergent; avoid use of solvents.

7. Handling and storage

Safe handling advice

Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. The product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Preparation may charge electrostatically: always use grounded leads when transferring from one container to another. Operators should wear antistatic footwear and clothing. No sparking tools should be used. Avoid skin and eye contact. Do not breathe vapours or spray mist. Smoking, eating and drinking should be prohibited in the application area. For personal protection see section 8. Comply with the health and safety at work laws. If material is a coating, do not sand, flame cut, braze or weld dry coating without an appropriate respirator or appropriate ventilation, and gloves.

Advice on protection against fire and explosion

Solvent vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Never use pressure to empty container: container is not a pressure vessel. Always keep in containers of same material as the original one. The accumulation of contaminated rags may result in spontaneous combustion. Good housekeeping standards and regular safe removal of waste materials will minimize the risks of spontaneous combustion and other fire hazards.

Storage

Requirements for storage areas and containers

Observe label precautions. Store between 5 and 25 °C in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Prevent unauthorized access. Containers which are opened must be carefully resealed and kept upright to prevent leakage. The storage and use of this product is subject to the requirements of the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR). Up to 50 litres of such highly flammable liquids may be stored in a work area provided they are kept in a fire-proof cupboard or bin. Larger quantities must be kept in a separate storeroom conforming to the structural requirements of the regulations. Further guidance is contained in the HSE ACOP L135, "Storage of Dangerous Substances."

Advice on common storage

Store separately from oxidizing agents and strongly alkaline and strongly acidic materials. Do not store together with explosives, gases, oxidizing solids, products which form flammable gases in contact with water, oxidizing products, infectious products and radioactive products.

8. Exposure controls/personal protection

Additional technical information on the plant

Provide adequate ventilation. This should be achieved by a good general extraction and -if practically feasible- by the use of a local exhaust ventilation. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn. Mask with gas filter, type A (EN 141)

National occupational exposure limits

| CAS-No. | Chemical Name | Source | Time | Type | Value | Note |
|----------|-----------------|--------|------|------|-----------|------|
| 123-86-4 | n-butyl acetate | | | STEL | 966 mg/m3 | |
| | | | | STEL | 200 ppm | |
| | | | | TWA | 724 mg/m3 | |



| CAS-No. | Chemical Name | Source | Time | Type | Value | Note |
|-----------|------------------------|--------|--------|-------|-----------|------|
| | | | | TWA | 150 ppm | |
| 108-10-1 | Methyl isobutyl ketone | | 15 min | IOELV | 208 mg/m3 | Skin |
| | | | 15 min | IOELV | 50 ppm | Skin |
| | | | 8 hr | IOELV | 83 mg/m3 | Skin |
| | | | 8 hr | IOELV | 20 ppm | Skin |
| | | | 15 min | STEL | 416 mg/m3 | |
| | | | 15 min | STEL | 100 ppm | |
| | | | 8 hr | TWA | 208 mg/m3 | |
| | | | 8 hr | TWA | 50 ppm | |
| 1330-20-7 | xylene | | 15 min | IOELV | 442 mg/m3 | Skin |
| | | | 15 min | IOELV | 100 ppm | Skin |
| | | | 8 hr | IOELV | 221 mg/m3 | Skin |
| | | | 8 hr | IOELV | 50 ppm | Skin |
| | | | | STEL | 441 mg/m3 | |
| | | | | STEL | 100 ppm | |
| | | | | TWA | 220 mg/m3 | |
| | | | | TWA | 50 ppm | |
| 100-41-4 | ethylbenzene | | 15 min | IOELV | 884 mg/m3 | Skin |
| | | | 15 min | IOELV | 200 ppm | Skin |
| | | | 8 hr | IOELV | 442 mg/m3 | Skin |
| | | | 8 hr | IOELV | 100 ppm | Skin |
| | | | | STEL | 552 mg/m3 | |
| | | | | STEL | 125 ppm | |
| | | | | TWA | 441 mg/m3 | |
| | | | | TWA | 100 ppm | |

Protective equipment

Personal protective equipment should be worn to prevent contact with eyes, skin or clothing.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection

The breakthrough time of gloves is unknown for the product itself. The glove material given is recommended on basis of the substances in the preparation.

| Chemical Name | Glove material | Glove thickness | Break through time |
|-------------------|------------------------|-----------------|--------------------|
| n-butyl acetate | Viton (R) [®] | 0.7 mm | 10 min |
| | Nitrile rubber | 0.33 mm | 30 min |
| pentane-2,4-dione | butyl-rubber | 0.7 mm | 480 m |

| Chemical Name | Glove material | Glove thickness | Break through time |
|---------------|----------------|-----------------|--------------------|
| xylene | Nitrile rubber | 0.33 mm | 30 min |
| | Viton (R) ® | 0.7 mm | 480 min |

The protective glove should be checked in each case for their work specific suitability (e.g. mechanical stability, product compatibility, and anti-static properties). When the intended use is for spray application a nitrile glove of the chemical resistance group 3 (e.g. Dermatril® glove) is to be used. After contamination, the glove has to be changed. If immersing the hands into the product is not avoidable (e.g. maintenance work) a butyl or fluorocarbon rubber glove should be used. When skin exposure may occur to materials specified in section 3 of this SDS, advice should be sought from the glove supplier as to appropriate type to use with this product and the permeation breakthrough times. Care should be taken when working with sharp edged articles as these can easily damage the gloves and make them ineffective. The instructions and information provided by the glove supplier on use, storage, maintenance and replacement must be followed. Damaged gloves or those showing signs of wear should be replaced immediately.

Eye protection

Wear protective eyewear for protection against solvent spatter.

Skin and body protection

Wear suitable protective clothing. Personnel should wear antistatic clothings made of natural fiber or of high temperature resistant synthetic fiber.

Hygiene measures

Wash skin thoroughly with soap and water or use recognized skin cleanser. Do not use organic solvents!

Environmental exposure controls

Do not let product enter drains. For ecological information refer to section 12.

9. Physical and chemical properties

Appearance

Form: liquid Colour: clear

Important health, safety and environmental information

| | Value | Method |
|--|------------------------|-----------------------------------|
| Flash point | 21 °C | DIN 53213/ISO1523 |
| Ignition temperature | 350 °C | DIN 51794 |
| Boiling point/boiling range | 114 °C | |
| Lower explosion limit | 1 % | |
| Upper explosion limit | 11.6 % | |
| Vapour pressure | 11.9 hPa | |
| Relative density | 0.88 g/cm ³ | DIN 53217/ISO 2811 |
| Water solubility | appreciable | |
| Viscosity (23 °C) | <20 s | ISO 2431-1993 6 mm |
| Solvent separation test | < 3% | ADR/RID |
| Content of volatile components (including water) | 99.3% | Basis Vapour pressure >= 0.01 kPa |
| pH | No data available. | |

10. Stability and reactivity

Stability

Stable

Conditions to avoid

Stable under recommended storage and handling conditions (see section 7).

Materials to avoid

Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Hazardous decomposition products

When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen.

11. Toxicological information

General observations

There is no data available on the product. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 3 and 15 for details.

Practical experience

Swallowing may cause nausea, diarrhoea, vomiting, gastro-intestinal irritation and chemical pneumonia. Exposure to component solvents vapours concentration in excess of the stated occupational exposure limit may result in adverse health effect such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

Acute toxicity

Acute inhalation toxicity

| EINECS-No. | Chemical Name | Species | Type | Exposure time | Value | Method |
|------------|------------------------|---------|------|---------------|-----------------|--------|
| 203-550-1 | Methyl isobutyl ketone | rat | LC50 | 4 h | => ppm 2,000 | |
| 215-535-7 | xylene | rat | LC50 | 4 h | 5,000 ppm | |
| 202-849-4 | ethylbenzene | rat | LC50 | 4 h | 4,000 ppm | |

Acute dermal toxicity

| EINECS-No. | Chemical Name | Species | Type | Exposure time | Value | Method |
|------------|---------------|---------|------|---------------|---------------|--------|
| 215-535-7 | xylene | rabbit | LD50 | | > 1,700 mg/kg | |

Acute oral toxicity

| EINECS-No. | Chemical Name | Species | Type | Exposure time | Value | Method |
|------------|---------------------------------------|---------|------|---------------|---------------|--------|
| 204-634-0 | pentane-2,4-dione | rat | LD50 | | > 500 mg/kg | |
| 201-039-8 | dibutylbis((1-oxododecyl)oxy)stannane | rat | LD50 | | > 2,000 mg/kg | |

12. Ecological information

There are no data available on the product itself. The product should not be allowed to enter drains or watercourses. The data in this section is consistent with data from chemical safety reports available at the date of revision. Product does not contain organic linked halogens contributing to AOX.

Acute toxicity aquatic invertebrates

| EINECS-No. | Chemical Name | Species | Type | Exposure time | Value | Method |
|------------|---------------------------------------|---------|------|---------------|---------|--------|
| 201-039-8 | dibutylbis((1-oxododecyl)oxy)stannane | Daphnia | EC50 | 48 h | 1 mg/m3 | |

Acute and extended toxicity of fishes

| EINECS-No. | Chemical Name | Species | Type | Exposure time | Value | Method |
|------------|---------------------------------------|------------------------------|------|---------------|----------|--------|
| 201-039-8 | dibutylbis((1-oxododecyl)oxy)stannane | Leuciscus idus (Golden orfe) | LC50 | 48 h | 2 mg/l | |
| 201-039-8 | dibutylbis((1-oxododecyl)oxy)stannane | Danio rerio (zebra fish) | LC50 | 96 h | 3.1 mg/l | |

Mobility

No information available.

Persistence and degradability

No information available.

Bioaccumulative potential

No information available.

Other adverse effects

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See Sections 3 and 15 for details.

13. Disposal considerations

Dispose of in accordance with local regulations.

Product

Recommendation:

A disposal process that converts the waste into energy is recommended. If this is not possible the hazardous waste must be disposed of by incineration.

| Waste Key Number | Description |
|------------------|--|
| 08 01 17 | wastes from paint or varnish removal containing organic solvents or other dangerous substances |

Uncleaned packaging

Recommendation:

Properly emptied containers are to be scrap processed or reconditioned. Improperly emptied containers are considered hazardous waste (waste key number 150110). Waste, including emptied containers, is controlled waste. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. If fully drained containers are compacted they can be regarded as Controlled Waste and disposed of in accordance with the requirements of the Control of Pollution Act 1974 and the Environmental Protection Act 1990 (GB), the Pollution Control and Local Government (NI) Order 1978 (NI) or of the EC (Waste) Regulations 1979 and the EC (Toxic & Dangerous Waste) Regulations 1982 (IRL).

14. Transport information

Transport only in accordance with the requirements of the Carriage of Dangerous Goods by Road and Rail (Classification, Packaging and Labeling), ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport.

ADR/RID (Land transport)

Proper shipping name: PAINT RELATED MATERIAL

UN-Number: 1263
Hazard Class: 3
Subsidiary Hazard Class: Not applicable.
Packing group: II
Tunnel restriction code: D/E
Special Provision: 640D
Hazchem: 3YE

IMDG (Sea transport)

Proper shipping name: PAINT RELATED MATERIAL

UN-Number: 1263
Hazard Class: 3
Subsidiary Hazard Class: Not applicable.
Packing group: II
Marine Pollutant: no
EmS: F-E,S-E

ICAO/IATA (Air transport)

Proper shipping name: PAINT RELATED MATERIAL

UN-Number: 1263
Hazard Class: 3

Subsidiary Hazard Class: Not applicable.
Packing group: II

15. Regulatory information

Labelling according to European Directive 1999/45/EC.

Symbol and indication of hazard.

| | |
|---------------|---|
| T Contains | Toxic dibutylbis((1-oxododecyl)oxy)stannane. |
|---------------|---|

R-phrases(s)

| | |
|-----------|---|
| R60 | May impair fertility. |
| R61 | May cause harm to the unborn child. |
| R10 | Flammable. |
| R20/21/22 | Harmful by inhalation, in contact with skin and if swallowed. |
| R52/53 | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R66 | Repeated exposure may cause skin dryness or cracking. |

S-phrases(s)

| | |
|--------|---|
| S53 | Avoid exposure - obtain special instructions before use. |
| S23 | Do not breathe vapour. |
| S28 | After contact with skin, wash immediately with plenty of soap and water. |
| S36/37 | Wear suitable protective clothing and gloves. |
| S38 | In case of insufficient ventilation, wear suitable respiratory equipment. |
| S45 | In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). |

National legislation

This safety datasheet has been prepared according to British legislation.

The product is labeled according to the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 as amended (CHIP Regulations). The risk associated with the use of this product must be assessed in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations and the Dangerous Substances and Explosive Atmospheres Regulations.

16. Other information

Full text of R phrases with no. appearing in section 3

| | |
|--------|--|
| R10 | Flammable. |
| R11 | Highly flammable. |
| R20 | Harmful by inhalation. |
| R20/21 | Harmful by inhalation and in contact with skin. |
| R22 | Harmful if swallowed. |
| R36/37 | Irritating to eyes and respiratory system. |
| R36/38 | Irritating to eyes and skin. |
| R38 | Irritating to skin. |
| R48/25 | Toxic: danger of serious damage to health by prolonged exposure if swallowed. |
| R50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R60 | May impair fertility. |
| R61 | May cause harm to the unborn child. |
| R66 | Repeated exposure may cause skin dryness or cracking. |
| R67 | Vapours may cause drowsiness and dizziness. |
| R68 | Possible risk of irreversible effects. |

Information taken from reference works and the literature.

| | |
|--|--|
| Substance No. | CAS no: www.cas.org/EO/regsys.html EC no: http://ecb.jrc.it/esis/index.php?PGM=ein |
| Substances presenting a health or environmental hazard within the meaning of Directive 67/548/EEC. | http://ecb.jrc.it/existing-chemicals/ http://ecb.jrc.it/classification-labelling/ http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB http://www.cdc.gov/niosh/ipcs/icstart.html |
| Other directives, limitations and prohibitory regulations | Directive 76/769/EC Directive 98/24/EC Directive 90/394/EC Directive 793/93/EC Directive 1999/45/EC Directive 2006/8/EC EUR-LEX: http://europa.eu.int/eur-lex/lex |
| Exposure limit for the pure substance | http://osha.europa.eu/OSHA |

Training advice

Directive 76/769/EC
Directive 98/24/EC

Further information

The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.

Report version

| Version | Changes |
|---------|------------------|
| 13.0 | 3, 8, 11, 12, 15 |

Revision Date: 2010-08-25

Annex - Exposure scenarios

An exposure scenario is a description of use conditions which allows the risk of a substance or mixture to humans or the environment to be controlled. The exposure scenario is based on the initial scenarios of the chemicals used in this preparation. Up to the time of issuing this SDS there were no initial exposure scenarios available.

The product is only for industrial and/or professional use, not for any consumer use.