

SAFETY DATA SHEET

according to EC directive 91/155/EEC

Print Date: 12.09.2006

Revision Date : 12.09.2006

Version : 1.1

Trade name: **ZF-Lifeguardfluid One**

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Trade name : ZF-Lifeguardfluid One
Company : **ZF Getriebe GmbH**
Südring
66117 Saarbrücken
Deutschland
Telephone : +49 681 920 2721
Telefax : +49 681 920 131 2721
Contact person : Abteilung Technische Koordination MKTK
E-mail address : aftersales-sbr@zf.com
Emergency telephone number : +49 681 920-2222 (Plant medical service)

Use

Specific use(s) : Fuel additive

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	EC-No.	Classification	Concentration [%]
alkyl acetamide			Xi; R38 R43	20 - < 30
Ethanol, 2,2'-iminobis-, N-tallow alkyl derivs.	61791-44-4	263-177-5	Xn; R22 C; R34 R43 N; R50	0,1 - < 1
calciumsulfonate			R43	0,1 - < 1
hydrocarbylsulfide, substituted			N; R51/53	0,1 - < 1

3. HAZARDS IDENTIFICATION

Risk advice to man and the environment



Symbol(s) : Xi Irritant

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R-phrase(s) : R38 Irritating to skin.
R43 May cause sensitization by skin contact.

4. FIRST AID MEASURES

General advice : Remove from exposure, lie down.
In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
When symptoms persist or in all cases of doubt seek medical advice.
Never give anything by mouth to an unconscious person.
Take off all contaminated clothing immediately.

Inhalation : Remove to fresh air.
Keep patient warm and at rest.
If symptoms persist, call a physician.
If breathing is irregular or stopped, administer artificial respiration.

Skin contact : Wash off immediately with soap and plenty of water.
Do NOT use solvents or thinners.

Eye contact : Remove contact lenses.
In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Ingestion : If swallowed, seek medical advice immediately and show this container or label.
If a person vomits when lying on his back, place him in the recovery position.
Do NOT induce vomiting.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Carbon dioxide (CO2)
Foam
Dry powder

Specific hazards during fire fighting : Fire will produce dense black smoke containing hazardous combustion products (see heading 10).
Do not use a solid water stream as it may scatter and spread fire.

Special protective equipment for fire-fighters : Complete suit protecting against chemicals

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Further information : Standard procedure for chemical fires.
Exposure to decomposition products may be a hazard to health.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Refer to protective measures listed in sections 7 and 8.
Ventilate the area.
Avoid inhalation of vapour or mist.

Environmental precautions : Should not be released into the environment.
Avoid subsoil penetration.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up : Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.

7. HANDLING AND STORAGE

Handling

Advice on safe handling : Avoid contact with skin and eyes.
Do not breathe vapours or spray mist.
For personal protection see section 8.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.
Vapours are heavier than air and may spread along floors.

Dust explosion class : not applicable

Storage

Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place.
Store in original container.

Advice on common storage : Keep away from food, drink and animal feeding stuffs.
Incompatible with oxidizing agents.

German storage class : 10, Combustible liquids neither in Storage Class 3A nor 3B

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Remarks : No decomposition if stored and applied as directed.

Other information

Water contaminating class (Germany) : WGK 2 , water endangering

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures

General advice : Provide adequate ventilation.

Personal protective equipment

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.

Hand protection

Material : Nitrile rubber
Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work.
For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer.

Eye protection

: Please wear suitable protective goggles. Also wear face protection if there is a splash hazard.

Skin and body protection

: impervious clothing

Hygiene measures

: When using, do not eat, drink or smoke.
Avoid contact with skin, eyes and clothing.
Wash hands before breaks and at the end of workday.
Wash contaminated clothing before re-use.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form : liquid

Colour : amber

Odour : mild

Safety data

pH : no data available

Explosive properties : Explosive properties according to the EU : Not explosive

Pour point : no data available

Melting point/range : no data available

Boiling point/range : no data available

Flash point : > 124 °C

Autoignition temperature : no data available

Lower explosion limit : no data available

Upper explosion limit : no data available

Vapour pressure : no data available

Density : 0,86 g/cm³
at 15,6 °C

Bulk density : no data available

Water solubility : insoluble

Viscosity, dynamic : no data available

Viscosity, kinematic : no data available

10. STABILITY AND REACTIVITY

Materials to avoid : Incompatible with oxidizing agents.

Hazardous decomposition : Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen

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<u>products</u>	(NOx), dense black smoke. Aldehydes
<u>Thermal decomposition</u>	: Heating can release hazardous gases.
<u>Hazardous reactions</u>	: General Information: Hazardous polymerisation does not occur. Stability: Stable under recommended storage conditions.

11. TOXICOLOGICAL INFORMATION

<u>Acute oral toxicity</u>	: LD50 rat Dose: > 5.000 mg/kg Data from similar compositions
<u>Acute dermal toxicity</u>	: LD50 rabbit Dose: > 2.000 mg/kg Data from similar compositions
<u>Skin irritation</u>	: Prolonged skin contact may cause skin irritation and/or dermatitis.
<u>Eye irritation</u>	: The liquid splashed in the eyes may cause irritation and reversible damage. Strong lachrymation can make it difficult to escape
<u>Sensitization</u>	: May cause sensitization by skin contact.
<u>Further information</u>	: May cause irritation of respiratory tract. May cause irritation of the mucous membranes.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Acute and prolonged toxicity for aquatic invertebrates	: EC50 Species: Dose: 100 - 1.000 mg/l Remarks: Toxicity data from individual values
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Further information on ecology

<u>Adsorbed organic bound halogens (AOX)</u>	: not included
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Other ecotoxicological advice : The product should not be allowed to enter drains, water courses or the soil.

13. DISPOSAL CONSIDERATIONS

Advice on disposal and packaging : Disposal:
In accordance with local and national regulations.

Disposal of uncleaned packaging : Waste key (uncleaned packaging) :
150110, packaging containing residues of or contaminated by dangerous substances

14. TRANSPORT INFORMATION

Not dangerous goods in the meaning of ADR/RID, ADNR, IMDG-Code, ICAO/IATA-DGR

15. REGULATORY INFORMATION

Labelling according to EC Directives

Hazardous components which must be listed on the label:

- alkyl acetamide

Symbol(s) : Xi Irritant



R-phrase(s) : R38 Irritating to skin.
R43 May cause sensitization by skin contact.

S-phrase(s) : S 2 Keep out of reach of children.
S23 Do not breathe vapour.
S24 Avoid contact with skin.
S37 Wear suitable gloves.
S46 If swallowed, seek medical advice immediately and show this container or label.

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S56	Dispose of this material and its container to hazardous or special waste collection point.
S64	If swallowed, rinse mouth with water (only if the person is conscious).

VOC: : no VOC duties

National legislation

Water contaminating class (Germany) : WGK 2 water endangering

TA Luft : no data available

16. OTHER INFORMATION

R-phrases corresponding to the number shown in section 2 :

R22	Harmful if swallowed.
R34	Causes burns.
R38	Irritating to skin.
R43	May cause sensitization by skin contact.
R50	Very toxic to aquatic organisms.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.