

# Safety data sheet

Revision: 23-11-2011  
Replaces: 18-01-2008  
Version: 01.00 / UK

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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Trade name: Tri-Flow Aerosol

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

Recommended uses: Universal lubricant

### 1.3. Details of the supplier of the safety data sheet

Supplier: Brd. Klee A/S  
Gadagervej 11-13  
2620 Albertslund

Tel: Denmark  
+45 43 86 83 33  
Fax: +45 46 86 83 88  
Email: klee@brd-klee.dk

### 1.4. Emergency telephone number

0870 600 6266 (UK only) Only available to health professionals.

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## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

DPD-classification: F+a;R12A ;R52/53 ;R66

*Please see section 16 for the full text of R-phrases and H-phrases.*

Most serious harmful effects: Extremely flammable. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Repeated exposure may cause skin dryness or cracking.  
Inhalation of spray mist may cause chemical pneumonia. Prolonged or repeated inhalation of vapours may cause damage to the central nervous system.

### 2.2. Label elements



R-phrases: Extremely flammable.  
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
Repeated exposure may cause skin dryness or cracking.

S-phrases: Do not breathe vapour/spray.  
This material and its container must be disposed of in a safe way.  
Use only in well ventilated areas.  
Avoid release to the environment. Refer to special instructions/safety data sheet.

Other labelling:

Pressurized container: Protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition – No smoking. Keep out of the reach of children.

### 2.3. Other hazards

Assessment to determine PBT and vPvB has not been made.

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## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Registration number	CAS/EC Number	Substance	DSD-classification/ CLP-classification	w/w%	Note
.	64742-82-1	Naphtha (petroleum), hydro-	R10 Xn;R65 R66 N;R51/53	10-20	.
.	265-185-4	desulfurized heavy	.	.	.
.	106-97-8	Butane (containing < 0,1 %	Fx;R12	5-10	.
.	203-448-7	butadiene (203-450-8))	Flam. Gas 1;H220 Press. Gas;H280	.	.
.	74-98-6	Propane	Fx;R12	5-10	.
.	200-827-9	.	Flam. Gas 1;H220 Press. Gas;H280	.	.
.	628-63-7	Pentyl acetate	R10 R66	1-5	.
.	211-047-3	.	Flam. Liq. 3;H226	.	.
.	64742-48-9	Naphtha (petroleum), hydro-	R10 Xn;R65 R66	1-5	3
.	265-150-3	treated heavy (<0.1% benzene)	Flam. Liq. 3;H226 Asp. Tox. 1;H304	.	.
.	34590-94-8	(2-methoxymethylethoxy)	-	1-5	.
.	252-104-2	propanol	.	.	.
.	68649-42-3	Phosphorodithioic acid, O,O-di	Xi;R36/38 N;R51/53	0,1-1	.
.	272-028-3	-C1-14-alkyl esters, zinc salts	.	.	.
.	.	.	.	.	.

3) R65 is not applicable due to use as aerosols.

Please see section 16 for the full text of R-phrases and H-phrases.

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## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Inhalation:	Seek fresh air.
Ingestion:	Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Seek medical advice in case of persistent discomfort.
Skin:	Remove contaminated clothing. Wash skin with soap and water. Seek medical advice in case of persistent discomfort.
Eyes:	Flush with water (preferably using eye wash equipment) until irritation subsides. Seek medical advice if symptoms persist.
Burns:	Flush with water until pain ceases. Remove clothing that is not stuck to the skin – seek medical advice/transport to hospital. If possible, continue flushing until medical attention is obtained.
Other information:	When obtaining medical advice, show the safety data sheet or label. Symptoms: See section 11.

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

Repeated exposure may cause skin dryness or cracking. Inhalation of spray mist may cause chemical pneumonia. Prolonged or repeated inhalation of vapours may cause damage to the central nervous system.

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

Treat symptoms.

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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	Extinguish with powder, foam, carbon dioxide or water mist.
Unsuitable extinguishing media	Do not use water stream, as it may spread the fire.

### 5.2. Special hazards arising from the substance or mixture

CAUTION! Aerosol containers may explode.

### 5.3. Advice for firefighters

Wear Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Move containers from danger area if it can be done without risk. Avoid inhalation of vapour and flue gases – seek fresh air.

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## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Wear gloves. Wear respiratory protective equipment. Provide adequate ventilation. Smoking and naked flames prohibited.

For emergency responders: No special requirements. Protective suit equivalent to EN 368, type 3, is recommended.

### 6.2. Environmental precautions

Avoid unnecessary release to the environment.

### 6.3. Methods and material for containment and cleaning up

Wipe up drops and splashes with a cloth.

### 6.4. Reference to other sections

See section 8 for type of protective equipment. See section 13 for instructions on disposal.

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

See section 8 for information about precautions for use and personal protective equipment. Smoking and naked flames prohibited. A workplace assessment must be conducted to ensure that employees are not exposed to effects that may involve a risk during pregnancy.

### 7.2. Conditions for safe storage, including any incompatibilities

Store safely, out of reach of children and away from food, animal feeding stuffs, medicines, etc. Do not expose to heat (e.g. sunlight). Pressurized container: Protect from sunlight and do not expose to temperatures exceeding 50°C.

### 7.3. Specific end use(s)

None.

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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Occupational exposure limits:

Ingredient:	Exposure limit	Remarks
Butane	600 (8h), 750 (15m) ppm 1,450 (8h), 1,810 (15m) mg/m <sup>3</sup>	-
(2-methoxymethylethoxy)propanol	50 (8h), - (15m) ppm 308 (8h), - (15m) mg/m <sup>3</sup>	Sk
Pentyl acetate	50 (8h), 100 (15m) ppm 270 (8h), 541 (15m) mg/m <sup>3</sup>	-
Naphtha (petroleum), hydrodesulfurized heavy	- (8h), - (15m) ppm 1200 (8h), - (15m) mg/m <sup>3</sup>	1

Legal basis: EH40/2005 Workplace exposure limits incl. supplement from October 2007.

Remarks: SK: Can be absorbed through skin  
1: Guidance value for  $\geq C7$  (normal branched chain alkanes+ cycloalcanes): 1200 mg/m<sup>3</sup>.

Measuring methods: Compliance with the stated occupational exposure limits may be checked by occupational hygiene measurements.

### 8.2. Exposure controls

Appropriate engineering controls: Wear the personal protective equipment specified below. See also section 7.1.

Personal protective equipment, eye/face protection: Wear safety goggles if there is a risk of eye splash. Eye protection must conform to EN 166.

Personal protective equipment, skin protection: Wear plastic or rubber protective gloves. Type of material: Nitrile rubber. Gloves must conform to EN 374. Breakthrough time has not been determined for the product. Change gloves often.

Personal protective equipment, respiratory protection:	In case of insufficient ventilation, wear respiratory protective equipment with filter A. Respiratory protection must conform to one of the following standards: EN 136/140/145.
Environmental exposure controls:	Ensure compliance with local regulations for emissions.

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## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

State:	Aerosol
Colour:	Brown
Odour:	Solvent
Odour threshold:	No data
pH (solution for use):	No data
pH (concentrate):	No data
Melting point/freezing point:	No data
Initial boiling point and boiling range:	No data
Flash point:	No data
Evaporation rate:	No data
Flammability (solid, gas):	No data
Upper/lower flammability limits:	No data
Upper/lower explosive limits:	No data
Vapour pressure:	No data
Vapour density:	No data
Relative density:	0,866 g/ml
Solubility:	Solubility in water: Insoluble
Partition coefficient n-octanol/water:	No data
Auto-ignition temperature:	No data
Decomposition temperature:	No data
Viscosity:	No data
Explosive properties:	No data
Oxidising properties:	No data

### 9.2. Other information

None.

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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Not reactive.

### 10.2. Chemical stability

The product is stable when used in accordance with the supplier's directions.

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

Avoid heating and contact with ignition sources.

### 10.5. Incompatible materials

Strong oxidisers/ Strong alkalis/ Strong acids.

### 10.6. Hazardous decomposition products

None known.

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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity - oral: The product does not have to be classified. Test data are not available.

Acute toxicity - dermal: The product does not have to be classified. Test data are not available.

Acute toxicity - inhalation: The product does not have to be classified. Test data are not available.

Degreases and dries the skin. Repeated exposure may cause skin dryness or cracking. The

Skin corrosion/irritation:	product does not have to be classified. Test data are not available.
Serious eye damage/eye irritation:	May cause eye irritation. The product does not have to be classified. Test data are not available.
Sensitisation:	The product does not have to be classified. Test data are not available.
Mutagenicity:	The product does not have to be classified. Test data are not available.
Carcinogenic properties:	The product does not have to be classified. Test data are not available.
Reproductive toxicity:	The product does not have to be classified. Test data are not available.
Toxicity in case of single exposure:	The product releases organic solvent vapours which may cause lethargy and dizziness. At high concentrations, the vapours may cause headache and intoxication. Test data are not available.
Toxicity in case of repeated or prolonged exposure:	The product does not have to be classified. Test data are not available. Prolonged or repeated inhalation of vapours may cause damage to the central nervous system.
Aspiration hazard:	Inhalation of spray mist may cause chemical pneumonia. The product does not have to be classified. Test data are not available.
Other toxicological effects:	None known.

## SECTION 12: Ecological information

### 12.1. Toxicity

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### Acute toxicity:

628-63-7:

Crustacea: Daphnia magna: 48hEC50 = <210 mg/l

Algae: Name of species not specified: LOEC = 63 mg/l

34590-94-8:

Fish: Pimephales promelas: 96hLC50 = >10000 mg/l

Crustacea: Daphnia magna: 48hEC50 = 1919 mg/l

68649-42-3:

Fish: Pimephales promelas: 96hLC50 = 1-5 mg/l

Crustacea: Daphnia magna: 48hEC50 = 1-1,5 mg/l

### 12.2. Persistence and degradability

Expected to be biodegradable.

628-63-7: Readily biodegradable.

34590-94-8: Readily biodegradable.

### 12.3. Bioaccumulative potential

No bioaccumulation expected.

106-97-8: Partition coefficient n-octanol/water: 2,89

74-98-6: Partition coefficient n-octanol/water: 2,36

628-63-7: Partition coefficient n-octanol/water: 2,30

34590-94-8: Partition coefficient n-octanol/water: -0,35

#### 12.4. Mobility in soil

Test data are not available.

#### 12.5. Results of PBT and vPvB assessment

No assessment has been made.

#### 12.6. Other adverse effects

None known.

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### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Do not dispose of aerosol sprays in refuse collection, even when empty. The sprays must be sent to the municipal chemical waste collection facility with the specifications set out below.

Aerosol sprays:

EWC code: 16 05 04 Gases in pressure containers containing dangerous substances.

Wiping cloths with organic solvents:

EWC code: 15 02 02 Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances

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### SECTION 14: Transport information

#### ADR/RID

14.1. UN number	1950
14.2. UN proper shipping name	AEROSOLS
14.3. Transport hazard class(es)	2.1
14.4. Packing group	-
Hazard identification number	-
Tunnel restriction code:	D
14.5. Environmental hazards	The product should not be labelled as an environmental hazard (symbol: fish and tree).

#### ADN

14.1. UN number	1950
14.2. UN proper shipping name	AEROSOLS
14.3. Transport hazard class(es)	2.1
14.4. Packing group	-
14.5. Environmental hazards	The product should not be labelled as an environmental hazard (symbol: fish and tree).
Environmental hazard in tank vessels:	-

#### IMDG

14.1. UN number	1950
14.2. UN proper shipping name	AEROSOLS
14.3. Transport hazard class(es)	2.1
14.4. Packing group	-
14.5. Environmental hazards	The product is not a Marine Pollutant (MP).
IMDG Code segregation group:	-

**ICAO/IATA**

14.1. UN number	1950
14.2. UN proper shipping name	AEROSOLS, FLAMMABLE
14.3. Transport hazard class(es)	2.1
14.4. Packing group	-

**14.6. Special precautions for user**

None.

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

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**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Special provisions: None.

**15.2. Chemical safety assessment**

Chemical safety assessment has not been performed.

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**SECTION 16: Other information**

Changes have been made in the following sections: 1 - 16

Abbreviation explanations:

PBT: Persistent, Bioaccumulative and Toxic  
vPvB: Very Persistent and Very Bioaccumulative

R-phrases:

R10 Flammable.  
R12 Extremely flammable.  
R36/38 Irritating to eyes and skin.  
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R65 Harmful: May cause lung damage if swallowed.  
R66 Repeated exposure may cause skin dryness or cracking.

H-phrases:

H220 Extremely flammable gas.  
H226 Flammable liquid and vapour.  
H280 Contains gas under pressure, may explode if heated.  
H304 May be fatal if swallowed and enters airways.

Training:

A thorough knowledge of this safety data sheet should be a prerequisite condition.