

SAFETY DATA SHEET

MSDS 02 Brake Fluid DOT 5 -Silicone Base

SECTION 1: Identification

Product identifier

Trade name

MSDS 02 Brake Fluid DOT 5 -Silicone Base

Product no.

22

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

Relevant identified uses of the substance or mixture

Hydraulic fluid

Uses advised against

No special

Details of the supplier of the safety data sheet

Company and address

Orthene Chemicals .Ltd

Brember Road

HA2 8UJ Harrow

United Kingdom

+44 (0)20 8864 4414

E-mail

technical@orthene.co.uk

SDS date

2022-02-07

SDS Version

1.0

Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® (triage.webpoisoncontrol.org) to get specific guidance for your case

See also section 4 "First aid measures".

SECTION 2: Hazard(s) identification

OSHA/HCS status

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification of the substance or mixture

Not classified according to HCS (29 CFR 1910.1200)

Label elements

Hazard pictogram(s)

Not applicable

Signal word

Not applicable

Hazard statement(s)

Not applicable

Safety statement(s)

General

-

Prevention

-

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

Response

-

Storage

-

Disposal

-

Hazardous substances

No special

Other hazards

Additional labelling

Not applicable

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

SECTION 3: Composition/Information on Ingredients

Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
tributyl phosphate	CAS No.: 126-73-8	<1%	Acute Tox. 4, H302 Skin Irrit. 2, H315	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

No special

SECTION 4: First-aid measures

Description of first aid measures

General information

If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid).

Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

Upon irritation: rinse with water. In the event of continued irritation, seek medical assistance.

Eye contact

Upon irritation of the eye: Remove contact lenses. Flush eyes with plenty of water or salt water (20-30°C) and continue until irritation stops.

Ingestion

Provide plenty of water for the person to drink and stay with him/her. Seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material.

Burns

Not applicable

Most important symptoms and effects, both acute and delayed

No special

Indication of any immediate medical attention and special treatment needed

No special

Information to medics

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

Bring this safety data sheet or the label from this product.

SECTION 5: Fire-fighting measures

Extinguishing media

No special

Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the Poison Help Line on 1-800-222-1222 (24/7) in order to obtain further advice.

Fire fighters should wear appropriate personal protective equipment.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

No specific requirements

Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Methods and material for containment and cleaning up

Use sand, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

Reference to other sections

See section 13 on "Disposal considerations" in regard of handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

Precautions for safe handling

Do not eat, drink or smoke when handling this product.

See section 8 "Exposure controls/personal protection" for information on personal protection.

Conditions for safe storage, including any incompatibilities

No special conditions required.

Recommended storage material

Always store in containers of the same material as the original container.

Storage temperature

Room temperature 15 to 30°C

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

Specific end use(s)

This product should only be used for applications quoted in section 1.2

SECTION 8: Exposure controls/personal protection

Control parameters

—
tributyl phosphate

Long term exposure limit (OSHA Table Z-1) (mg/m³): 5

Long term exposure limit (ACGIH TLV) (mg/m³): 5 (Inhalable Fraction and Vapor)

Part 1910 - Occupational Safety and Health Standards (29 CFR 1910.1000 TABLE Z-1 - Limits for Air Contaminants)

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Do not eat, drink or smoke when handling this product.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and -showers are clearly marked.

Hygiene measures

Wash hands after use.

Measures to avoid environmental exposure

No specific requirements

Individual protection measures, such as personal protective equipment

Generally

Use only protective equipment with a recognized certification mark, e.g. the UL mark.



Respiratory Equipment

No specific requirements

Skin protection

No specific requirements

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Butyl	0.3	> 480	EN374-2, EN374-3, EN388	
Nitrile	0.2	> 480	EN374-2, EN374-3, EN388	

Eye protection

No specific requirements

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state

Liquid

Colour

Purple

Odour

Mild

Odour threshold (ppm)

Testing not relevant or not possible due to nature of the product.

pH

Testing not relevant or not possible due to nature of the product.

Density (g/cm³)

0.955 - 0.975 (20 °C)

Viscosity

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

15 - 25 centistokes (20 °C)

Phase changes

Melting point (°F)

-

Melting point (°C)

< -50

Boiling point (°F)

-

Boiling point (°C)

>300

Vapour pressure

0.01 mmHg (20 °C)

Vapour density

Testing not relevant or not possible due to nature of the product.

Decomposition temperature (°F)

-

Decomposition temperature (°C)

>350

Evaporation rate (n-butylacetate = 100)

0.01

Data on fire and explosion hazards

Flash point (°F)

-

Flash point (°C)

>120

Ignition (°F)

-

Ignition (°C)

>400

Auto flammability (°F)

Testing not relevant or not possible due to nature of the product.

Explosion limits (% v/v)

Testing not relevant or not possible due to nature of the product.

Solubility

Solubility in water

Insoluble

n-octanol/water coefficient

3.5

Other information

Solubility in fat (g/L)

Testing not relevant or not possible due to nature of the product.

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

Possibility of hazardous reactions

No special

Conditions to avoid

No special

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

Hazardous decomposition products

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/irritation

Based on available data, the classification criteria are not met.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Long term effects

No special

Other information

No special

SECTION 12: Ecological information

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

Product/substance	tributyl phosphate
Test method	
Potential bioaccumulation	No data available
LogPow	4.0
BCF	No data available
Other information	

Mobility in soil

No data available

Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

Other adverse effects

No special

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

SECTION 13: Disposal considerations

RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)

None of the components are listed

Specific labelling

Not applicable

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

Not dangerous goods according to DOT, IATA and IMDG.

DOT

Not applicable

IMDG

Not applicable

"MARINE POLLUTANT"

No

IATA

Not applicable

Environmental hazards

Not applicable

Special precautions for user

Not applicable

Transport in bulk according to Annex II of Marpol and the IBC Code

No data available

SECTION 15: Regulatory information

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

U.S. Federal regulations

TSCA

tributyl phosphate is listed in the non-confidential portion

Clean Air Act

None of the components are listed

EPCRA Section 302

None of the components are listed

EPCRA Section 304

None of the components are listed

EPCRA section 313

None of the components are listed

CERCLA

None of the components are listed

State regulations

California / Prop. 65

None of the components are listed

Massachusetts / Right To Know Act

None of the components are listed

New Jersey / Right To Know Act

tributyl phosphate / Substance number: 1880

Pennsylvania / Right To Know Act

tributyl phosphate is listed

Restrictions for application

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

No specific requirements

Additional information

Not applicable

Chemical safety assessment

No

Sources

OSHA Hazard Communication Standard (29 CFR 1910.1200)

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H302, Harmful if swallowed.

H315, Causes skin irritation.

The full text of identified uses as mentioned in section 1

No special

Abbreviations and acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CERCLA = Comprehensive Environmental Response Compensation and Liability Act

EINECS = European Inventory of Existing Commercial chemical Substances

EPCRA = Emergency Planning and Community Right-To-Know Act

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HCIS = Hazardous Chemical Information System

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

NFPA = National Fire Protection Association

NIOSH = National Institute for Occupational Safety and Health

OECD = Organisation for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

PBT = Persistent, Bioaccumulative and Toxic

RCRA = Resource Conservation and Recovery Act

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SARA = Superfund Amendments and Reauthorization Act

SCL = A specific concentration limit.

STEL = Short-term exposure limits

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TSCA = The Toxic Substances Control Act

TWA = Time weighted average

UN = United Nations

UVCB = Complex hydrocarbon substance

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

Additional information

Not applicable

The safety data sheet is validated by

DP

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: US-en