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

1.1 Product identifier

VS 150
VS 220

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

Relevant identified uses of the substance or mixture:
Gear lubricant

Uses advised against:
No information available at present.

1.3 Details of the supplier of the safety data sheet

Busch Produktions GmbH
Schauinslandstraße 1
79689 Maulburg
Tel.: +49 (0)7622 681-0

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de  Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

National Poisons Information Centre, Beaumont Hospital, Dublin 9, Ireland, Tel.:
+353 (0)1 809 2166 (Public Poisons Info Line, 8am-10pm, 7 days a week)
+353 (0)1 809 2566 (Info for Healthcare Professionals ONLY, 24 h, 7 days a week)

Telephone number of the company in case of emergencies:
+49 (0) 700 / 24 112 112 (BPC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)
The mixture is not classified as dangerous in the terms of the Regulation (EC) 1272/2008 (CLP).

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)
EUH208-Contains 3-(Diisobutoxy-thiophosphorylsulfanyl)-2-methyl-propionic acid. May produce an allergic reaction.
EUH210-Safety data sheet available on request.

2.3 Other hazards
The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).
The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>3.1 Substance</th>
<th>n.a.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2 Mixture</td>
<td>---</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration number (REACH)</td>
<td>---</td>
</tr>
<tr>
<td>Index</td>
<td>---</td>
</tr>
<tr>
<td>EINECS, ELINCS, NLP</td>
<td>---</td>
</tr>
<tr>
<td>CAS</td>
<td>---</td>
</tr>
<tr>
<td>content %</td>
<td>---</td>
</tr>
<tr>
<td>Classification according to Regulation (EC) 1272/2008 (CLP)</td>
<td>---</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

4.1 Description of first aid measures
First-aiders should ensure they are protected!
Never pour anything into the mouth of an unconscious person!

Inhalation
Remove person from danger area.
Supply person with fresh air and consult doctor according to symptoms.

Skin contact
Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact
Remove contact lenses.
Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion
Rinse the mouth thoroughly with water.
Do not induce vomiting. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed
If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.
In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.
Sensitive individuals:
Allergic reaction possible.
With oil mist formation:
Irritation of the respiratory tract
coughing
breathing difficulties
Ingestion:
Nausea
Vomiting
4.3 Indication of any immediate medical attention and special treatment needed
Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Foam
Water jet spray
Water mist

Unsuitable extinguishing media
High volume water jet

5.2 Special hazards arising from the substance or mixture
In case of fire the following can develop:
Oxides of carbon
Fume
Hydrocarbons
Decomposition products

5.3 Advice for firefighters
In case of fire and/or explosion do not breathe fumes.
Protective respirator with independent air supply.
According to size of fire
Full protection, if necessary.
Cool container at risk with water.
Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Keep unprotected persons away.
Ensure sufficient ventilation.
Avoid contact with eyes or skin.
If applicable, caution - risk of slipping.
During transfer operations:
Take measures against electrostatic charging, if appropriate.

6.2 Environmental precautions
If leakage occurs, dam up.
Resolve leaks if this possible without risk.
Prevent surface and ground-water infiltration, as well as ground penetration.
Prevent from entering drainage system.
If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up
Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.
Fill the absorbed material into lockable containers.

6.4 Reference to other sections
For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling
7.1.1 General recommendations
Ensure good ventilation.
Keep away from sources of ignition - Do not smoke.
Avoid contact with eyes.
Avoid long lasting or intensive contact with skin.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Observe directions on label and instructions for use.
Take measures against electrostatic charging, if appropriate.

7.1.2 Notes on general hygiene measures at the workplace
General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities
Store product closed and only in original packing.
Not to be stored in gangways or stair wells.
Under all circumstances prevent penetration into the soil.
Protect from direct sunlight and warming.
Earth devices.
Store in a well-ventilated place.
Unsuitable material: PVC

7.3 Specific end use(s)
No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oil mist, mineral</th>
<th>Content %:</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEL-TWA: 5 mg/m³ (Mineral oil, excluding metal working fluids, ACGIH)</td>
<td>WEL-STEEL: ---</td>
<td>---</td>
</tr>
<tr>
<td>Monitoring procedures:</td>
<td>Draeger - Oil Mist 1/a (67 33 031)</td>
<td></td>
</tr>
<tr>
<td>BMGV:</td>
<td>---</td>
<td>Other information: ---</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oil mist, mineral</th>
<th>Content %:</th>
</tr>
</thead>
<tbody>
<tr>
<td>OELV-8h: 5 mg/m³ (Mineral oil, pure, highly &amp; severely refined (inhalable))</td>
<td>OELV-15min: ---</td>
<td>---</td>
</tr>
<tr>
<td>Monitoring procedures:</td>
<td>Draeger - Oil Mist 1/a (67 33 031)</td>
<td></td>
</tr>
<tr>
<td>BLV:</td>
<td>---</td>
<td>Other information: ---</td>
</tr>
</tbody>
</table>

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).

(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BLV = Biological limit value | Other information: Carc1A, Carc1B = carcinogenic substance, Cat. 1A or 1B. Muta1A, Muta1B = mutagenic substance, Cat. 1A or 1B. Repr1A, Repr1B = Substances known to be toxic for reproduction, Cat. 1A or 1B. Sk = can be absorbed through skin. Asphx = asphyxiant. Sen = Respiratory sensitizer. BOELV = Binding Occupational Exposure Limit Values. IOELV = Indicative Occupational Exposure Limit Values.
8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction. If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn. Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques. These are specified by e.g. BS EN 14042.

BS EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents”.

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.
Eye/face protection:
Tight fitting protective goggles (EN 166) with side protection, with danger of splashes.
Skin protection - Hand protection:
Chemical resistant protective gloves (EN 374).
If applicable
Protective PVC gloves (EN 374)
Protective nitrile gloves (EN 374).
Protective Neoprene® / polychloroprene gloves (EN 374).
Minimum layer thickness in mm:
0,5
Permeation time (penetration time) in minutes:
>= 240
The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.
The recommended maximum wearing time is 50% of breakthrough time.
Protective hand cream recommended.
Skin protection - Other:
Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).
Respiratory protection:
If OES or MEL is exceeded.
Filter A P2 (EN 14387), code colour brown, white
Observe wearing time limitations for respiratory protection equipment.
Thermal hazards:
Not applicable
Additional information on hand protection - No tests have been performed.
In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents. Selection of materials derived from glove manufacturer's indications. Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account. Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties
9.1 Information on basic physical and chemical properties

Physical state: Liquid
Colour: Brown
Odour: Characteristic
Odour threshold: Not determined
pH-value: Not determined
Melting point/freezing point: (-42)-(-24) °C (ASTM D 97)
Initial boiling point and boiling range: >280 °C
Flash point: 275 °C (ASTM D 92 (Cleveland, open cup))
Evaporation rate: Not determined
Flammability (solid, gas): n.a.
Lower explosive limit: 1 Vol-%
Upper explosive limit: 10 Vol-%
Vapour pressure: <0,5 Pa (20°C)
Vapour density (air = 1): >1 (Vapours heavier than air.)
Density: 800-1000 kg/m3
Bulk density: n.a.
Solubility(ies): Not determined
Water solubility: Insoluble
Partition coefficient (n-octanol/water): >6
Auto-ignition temperature: >320 °C
Decomposition temperature: Not determined
Viscosity: 135-242 mm²/s (40°C, ASTM D 445)
Explosive properties: Product is not explosive. When using: development of explosive vapour/air mixture possible.

9.2 Other information

Miscibility: Not determined
Fat solubility / solvent: Not determined
Conductivity: Not determined
Surface tension: Not determined
Solvents content: Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity
The product has not been tested.
Not to be expected

10.2 Chemical stability
Stable with proper storage and handling.

10.3 Possibility of hazardous reactions
No dangerous reactions are known.

10.4 Conditions to avoid
Protect from direct sunlight and warming.
Strong heat

10.5 Incompatible materials
Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products
No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Possibly more information on health effects, see Section 2.1 (classification).
### SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

<table>
<thead>
<tr>
<th>VS 150</th>
<th>VS 220</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Toxicity / effect</strong></td>
<td><strong>Endpoint</strong></td>
</tr>
<tr>
<td>12.5. Results of PBT and vPvB assessment</td>
<td></td>
</tr>
<tr>
<td>12.6. Other adverse effects:</td>
<td></td>
</tr>
</tbody>
</table>

### SECTION 13: Disposal considerations

**13.1 Waste treatment methods**

Soaked polluted cloths, paper or other organic materials represent a fire hazard and should be controlled, collected and disposed of.

**For the substance / mixture / residual amounts**

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product. Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

13 02 06 synthetic engine, gear and lubricating oils

**Recommendation:**

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

**Recycling**
Waste disposal procedure:
E.g. suitable incineration plant.

For contaminated packing material
Pay attention to local and national official regulations.
Empty container completely.
Uncontaminated packaging can be recycled.
Dispose of packaging that cannot be cleaned in the same manner as the substance.
Do not perforate, cut up or weld uncleaned container.
Residues may present a risk of explosion.

### SECTION 14: Transport information

#### General statements

14.1. UN number: n.a.

#### Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name: n.a.
14.3. Transport hazard class(es): n.a.
14.4. Packing group: n.a.
14.5. Environmental hazards: Not applicable

#### Transport by sea (IMDG-code)

14.2. UN proper shipping name: n.a.
14.3. Transport hazard class(es): n.a.
14.4. Packing group: n.a.
Marine Pollutant: n.a
14.5. Environmental hazards: Not applicable

#### Transport by air (IATA)

14.2. UN proper shipping name: n.a.
14.3. Transport hazard class(es): n.a.
14.4. Packing group: n.a.
14.5. Environmental hazards: Not applicable

14.6. Special precautions for user
Unless specified otherwise, general measures for safe transport must be followed.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
Non-dangerous material according to Transport Regulations.

### SECTION 15: Regulatory information

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

Observe restrictions:
General hygiene measures for the handling of chemicals are applicable.

Directive 2010/75/EU (VOC): 0 %

15.2 Chemical safety assessment
A chemical safety assessment is not provided for mixtures.

### SECTION 16: Other information

Revised sections: 1, 8, 9, 15

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):
Not applicable
The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOX Adsorbable organic halogen compounds
approx. approximately
Art., Art. no. Article number
ASTM ASTM International (American Society for Testing and Materials)
BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
BSEF The International Bromine Council
bw body weight
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR carcinogenic, mutagenic, reproductive toxic
DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
dw dry weight
e.g. for example (abbreviation of Latin ‘exempli gratia’), for instance
EC European Community
ECHA European Chemicals Agency
EEC European Economic Community
EINECS European Inventory of Existing Commercial Chemical Substances
ELINCS European List of Notified Chemical Substances
EN European Norms
EPA United States Environmental Protection Agency (United States of America)
etc. et cetera
EU European Union
EVAL Ethylene-vinyl alcohol copolymer
Fax. Fax number
gen. general
GHS Globally Harmonized System of Classification and Labelling of Chemicals
GWP Global warming potential
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IBC (Code) International Bulk Chemical (Code)
IMDG-code International Maritime Code for Dangerous Goods
incl. including, inclusive
IUCLID International Uniform Chemical Information Database
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
OECD Organisation for Economic Co-operation and Development
org. organic
PBT persistent, bioaccumulative and toxic
PE Polyethylene
PNEC Predicted No Effect Concentration
ppm parts per million
PVC  Polyvinylchloride
REACH  Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No.  9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID  Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SVHC  Substances of Very High Concern
Tel.  Telephone
UN RTDG  United Nations Recommendations on the Transport of Dangerous Goods
VOC  Volatile organic compounds
vPvB  very persistent and very bioaccumulative
wt  wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.
These statements were made by:
Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90
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