

Ammann Asphalt GmbH
31061 Alfeld (Leine)

Date printed 29.01.2024, Revision 29.01.2024

Version 3.0

Page 1 / 13

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

1.1 Product identifier

AMMANN POWER LUBRICANT 1
UFI: 2VY3-P0PA-T00X-KKJM

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

1.2.1 Relevant uses

Grease

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

Ammann Asphalt GmbH
Hannoversche Straße 7-9
31061 Alfeld (Leine) / GERMANY
Phone +49 5181 76 – 0
Fax +49 5181 2 52 82
E-mail ammann.alfeld@ammann.com

Address enquiries to

Technical information

ammann.alfeld@ammann.com

Safety Data Sheet

sdb@chemiebuero.de (No dispatch of safety data sheets)
Safety data sheets are available from the supplier.

1.4 Emergency telephone number

Company

+ 49 171 745 0147

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

Eye Irrit. 2: H319 Causes serious eye irritation.

2.2 Label elements

Hazard pictograms



The product is required to be labelled in accordance with regulation CLP.

Signal word

WARNING

Hazard statements

H319 Causes serious eye irritation.

Precautionary statements

P264 Wash hands thoroughly after handling.
P280 Wear eye protection / face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice / attention.

Special labelling

Contains: Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol.
EUH208 May produce an allergic reaction.

2.3 Other hazards

Environmental hazards

This substance/mixture contains no components with endocrine-disrupting properties at levels of 0.1 % or higher.
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other hazards

Further hazards were not determined with the current level of knowledge.

Ammann Asphalt GmbH
31061 Alfeld (Leine)

Date printed 29.01.2024, Revision 29.01.2024

Version 3.0

Page 2 / 13

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

The product is a mixture.

Range [%]	Substance
70 - < 90	Residual oils (petroleum), hydrotreated CAS: 64742-57-0, EINECS/ELINCS: 265-160-8, EU-INDEX: 649-470-00-4, Reg-No.: 01-2119489287-22
2,5 - <10	reaction product of diphenylmethanediisocyanate, octylamine and oleylamine (molar ratio 1:1.86:0.14) CAS: 122886-55-9, EINECS/ELINCS: 430-930-6, EU-INDEX: 615-035-00-2, Reg-No.: 01-0000017717-62-XXXX GHS/CLP: Aquatic Chronic 4: H413
1 - <2,5	Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate) CAS: 4259-15-8, EINECS/ELINCS: 224-235-5, Reg-No.: 01-2119493635-27-XXXX GHS/CLP: Eye Dam. 1: H318 - Aquatic Chronic 2: H411 SCL [%]: >50 - 100: Eye Dam. 1: H318
0,1 - < 1	Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol EINECS/ELINCS: 946-010-7, Reg-No.: 01-2120770934-44-XXXX GHS/CLP: Skin Sens. 1: H317

Comment on component parts

For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Take off contaminated clothing and wash before reuse.

Inhalation

Ensure supply of fresh air.
Remove the victim into fresh air and keep him calm.
In the event of symptoms seek medical treatment.

Skin contact

In case of contact with skin wash off immediately with soap and water.
Consult a doctor if skin irritation persists.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Ingestion

Get medical advice.
Do not induce vomiting.
Rinse out mouth and give plenty of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Allergic reactions
Irritant effects

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
Forward this sheet to your doctor.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam.
Water spray jet.
Dry powder.
Carbon dioxide.

Extinguishing media that must not be used

Full water jet

Ammann Asphalt GmbH
31061 Alfeld (Leine)

Date printed 29.01.2024, Revision 29.01.2024

Version 3.0

Page 3 / 13

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
Carbon monoxide (CO)
Carbon dioxide (CO₂)
Nitrogen oxides (NO_x).
Sulphur oxides (SO_x).
Phosphorus oxides (PO_x).
Metal oxides.

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Use personal protective equipment (protective gloves, safety glasses, protective clothing).
Some risk of slipping due to spillage of product.
Forms slippery surfaces with water.

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up mechanically.
Take up residues with absorbent material (e.g. sand, sawdust, general purpose binder, diatomaceous earth).
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Material will burn in fire.
Do not eat, drink or smoke when using this product.
Take off contaminated clothing and wash before reuse.
Wash hands before breaks and after work.
Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.
Do not store together with oxidizing agents.
Keep container tightly closed.
Keep container in a well-ventilated place.
Keep in a cool place. Store in a dry place.
Protect from heat/overheating and from sun.

storage class (TRGS 510)

Storage class 11 (VCI)

7.3 Specific end use(s)

See product use, SECTION 1.2

Ammann Asphalt GmbH

31061 Alfeld (Leine)

Date printed 29.01.2024, Revision 29.01.2024

Version 3.0

Page 4 / 13

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored DE (TRGS 900)

Substance
Residual oils (petroleum), hydrotreated
CAS: 64742-57-0, EINECS/ELINCS: 265-160-8, EU-INDEX: 649-470-00-4, Reg-No.: 01-2119489287-22
Exposure limit: 5 mg/m ³ , (II)
Factor: 4

Ingredients with occupational exposure limits to be monitored EU (2004/37/EG)

not relevant

DNEL

Substance
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate), CAS: 4259-15-8
Industrial, inhalative, Long-term - systemic effects, 6,6 mg/m ³
Industrial, dermal, Long-term - systemic effects, 9,6 mg/kg bw/day
general population, inhalative, Long-term - systemic effects, 1,67 mg/m ³
general population, dermal, Long-term - systemic effects, 4,8 mg/kg bw/day
general population, oral, Long-term - systemic effects, 0,19 mg/kg bw/day
reaction product of diphenylmethanediisocyanate, octylamine and oleylamine (molar ratio 1:1.86:0.14), CAS: 122886-55-9
Industrial, inhalative, Long-term - systemic effects, 29,4 mg/m ³
Industrial, dermal, Long-term - systemic effects, 83,3 mg/kg bw/day
Residual oils (petroleum), hydrotreated, CAS: 64742-57-0
Industrial, inhalative, Long-term - systemic effects, 2.73 mg/m ³ (AF=45)
Industrial, inhalative, Long-term - local effects, 5.58 mg/m ³ (AF=45)
Industrial, dermal, Long-term - systemic effects, 0.97 mg/kg bw/d (AF=72)
general population, oral, Long-term - systemic effects, 0.74 mg/kg bw/d (AF=120)
Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol
Industrial, dermal, Long-term - systemic effects, 8.33 mg/kg bw/d (AF=120)
general population, dermal, Long-term - systemic effects, 4.17 mg/kg bw/d (AF=240)
general population, oral, Long-term - systemic effects, 4.17 mg/kg bw/d (AF=240)

PNEC

Substance
Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate), CAS: 4259-15-8
freshwater, 4 µg/L
seawater, 4,6 µg/L
sewage treatment plants (STP), 3,8 mg/l
soil, 0,062 mg/kg soil dw
oral (food), 8,33 mg/kg
sediment (seawater), 0,032 mg/kg dw
sediment (freshwater), 0,322 mg/kg dw
reaction product of diphenylmethanediisocyanate, octylamine and oleylamine (molar ratio 1:1.86:0.14), CAS: 122886-55-9
freshwater, 100 µg/L
seawater, 10 µg/L
sewage treatment plants (STP), 100 mg/L

Ammann Asphalt GmbH
31061 Alfeld (Leine)

Date printed 29.01.2024, Revision 29.01.2024

Version 3.0

Page 5 / 13

sediment (freshwater), 138,4 mg/kg sediment dw

sediment (seawater), 13,84 mg/kg sediment dw

soil, 27,54 mg/kg soil dw

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. General exposure limit for oil mist should be noted. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	Tightly fitting goggles. (EN 166:2001)
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. 0,5 mm, Nitrile rubber, >120 min (EN 374-1/-2/-3).
Skin protection	Oil-resistant protective clothing.
Other	Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier. Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols.
Respiratory protection	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, filter P2. (DIN EN 143)
Thermal hazards	not applicable
Delimitation and monitoring of the environmental exposition	Comply with applicable environmental regulations limiting discharge to air, water and soil.

Ammann Asphalt GmbH
31061 Alfeld (Leine)

Date printed 29.01.2024, Revision 29.01.2024

Version 3.0

Page 6 / 13

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	pasty
Form	solid
Color	brown
Odor	characteristic
Odour threshold	No information available.
pH-value	No information available.
pH-value [1%]	No information available.
Boiling point or initial boiling point and boiling range [°C]	No information available.
Flash point [°C]	not applicable
Flammability	The product is not explosive. The product is not flammable.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	<0,001 hPa (20°C)
Density [g/cm³]	0,9 (20 °C / 68,0 °F)
Relative density	0,9 (20 °C / 68,0 °F)
Bulk density [kg/m³]	not applicable
Solubility in water	insoluble
Solubility other solvents	No information available.
Partition coefficient n-octanol/water (log value)	No information available.
Kinematic viscosity	No information available.
Relative vapour density	No information available.
Melting point [°C]	No information available.
Auto-ignition temperature [°C]	No information available.
Decomposition temperature [°C]	No information available.
Particle characteristics	No information available.

9.2 Other information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

No hazardous reactions known.

10.4 Conditions to avoid

Strong heating.

Ammann Asphalt GmbH

31061 Alfeld (Leine)

Date printed 29.01.2024, Revision 29.01.2024

Version 3.0

Page 7 / 13

10.5 Incompatible materials

See SECTION 10.3.

10.6 Hazardous decomposition products

No dangerous reactions known if used as directed.

Ammann Asphalt GmbH
31061 Alfeld (Leine)

Date printed 29.01.2024, Revision 29.01.2024

Version 3.0

Page 8 / 13

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

Product

oral, Based on the available information, the classification criteria are not fulfilled.

Substance

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate), CAS: 4259-15-8

LD50, oral, Rat, 3100 mg/kg bw

Residual oils (petroleum), hydrotreated, CAS: 64742-57-0

LD50, oral, Rat, > 5000 mg/kg bw

Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol

LD50, oral, Rat, > 2000 mg/kg bw

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

Product

dermal, Based on the available information, the classification criteria are not fulfilled.

Substance

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate), CAS: 4259-15-8

LD50, dermal, Rabbit, 5000 mg/kg bw

Residual oils (petroleum), hydrotreated, CAS: 64742-57-0

LD50, dermal, Rat, > 5000 mg/kg bw

Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol

LD50, dermal, Rat, > 2000 mg/kg bw

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

Product

inhalative, Based on the available information, the classification criteria are not fulfilled.

Serious eye damage/irritation

Irritant

Calculation method

Based on the available information, the classification criteria are fulfilled.

Skin corrosion/irritation

Based on the available information, the classification criteria are not fulfilled.

Respiratory or skin sensitisation

May produce an allergic reaction.

Calculation method

Based on the available information, the classification criteria are not fulfilled.

**Specific target organ toxicity —
single exposure**

Based on the available information, the classification criteria are not fulfilled.

**Specific target organ toxicity —
repeated exposure**

Based on the available information, the classification criteria are not fulfilled.

Substance

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate), CAS: 4259-15-8

NOAEL, oral, Rat, 125 mg/kg bw/day, no adverse effect observed

Mutagenicity

Based on the available information, the classification criteria are not fulfilled.

Reproduction toxicity

Based on the available information, the classification criteria are not fulfilled.

- Fertility

Substance

Ammann Asphalt GmbH
31061 Alfeld (Leine)

Date printed 29.01.2024, Revision 29.01.2024

Version 3.0

Page 9 / 13

Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol

NOAEL, oral, Rat, 1000 mg/kg bw/day

- Development

Substance

Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol

NOAEL, oral, Rat, 300 mg/kg bw/day

Carcinogenicity

Based on the available information, the classification criteria are not fulfilled.

Aspiration hazard

Based on the available information, the classification criteria are not fulfilled.

General remarks

Toxicological data of complete product are not available.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

11.2.2 Other information

none

SECTION 12: Ecological information

12.1 Toxicity

Substance

Zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate), CAS: 4259-15-8

EL50, (48h), Daphnia magna, 75 mg/l (OECD 202)

NOEC, (21d), Daphnia magna, 0,4 mg/l (OECD 211)

LL50, (96h), Rainbow trout, 4,4 mg/l

ErL50, (72h), Scenedesmus subspicatus, 410 mg/l (OECD 201)

EbL50, (72h), Scenedesmus subspicatus, 240 mg/l (OECD 201)

Residual oils (petroleum), hydrotreated, CAS: 64742-57-0

LC50, (96h), Pimephales promelas, > 100 mg/L

IC50, (72h), Pseudokirchneriella subcapitata, > 100 mg/L

LL50, (48h), Daphnia magna, > 10 000 mg/L

12.2 Persistence and degradability

Behaviour in environment compartments

No information available.

Behaviour in sewage plant

No information available.

Biological degradability

No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

Ammann Asphalt GmbH
31061 Alfeld (Leine)

Date printed 29.01.2024, Revision 29.01.2024

Version 3.0

Page 10 / 13

12.6 Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

12.7 Other adverse effects

Ecological data of complete product are not available.
The product is insoluble in water.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Coordinate disposal with the authorities if necessary.

Waste no. (recommended)

120112* spent waxes and fats
070699

Contaminated packaging

Uncontaminated packaging may be taken for recycling.
Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended)

150110* packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

14.1 UN number or ID number

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS

Inland navigation (ADN) NO DANGEROUS GOODS

Marine transport in accordance with IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

Ammann Asphalt GmbH
31061 Alfeld (Leine)

Date printed 29.01.2024, Revision 29.01.2024

Version 3.0

Page 11 / 13

14.3 Transport hazard class(es)

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.4 Packing group

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Maritime transport in bulk according to IMO instruments

not applicable

Ammann Asphalt GmbH
31061 Alfeld (Leine)

Date printed 29.01.2024, Revision 29.01.2024

Version 3.0

Page 12 / 13

SECTION 15: Regulatory information

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

EEC-REGULATIONS	2008/98/EC 2000/532/EC; 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014; (EU) 2019/1148
- Comment on component parts	Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
- Annex I (REACH)	The product is not subject to Annex I restrictions.
- Annex XIV (REACH)	According to Annex XIV of Regulation (EC) 1907/2006 (REACH) the product does not contain any substances $\geq 0.1\%$ that are subject to authorisation.
- Annex XVII (REACH)	According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product contains $\geq 0.1\%$ of substances with the following restrictions. 75 According to Annex XVII of Regulation (EC) 1907/2006 (REACH) the product is not subject to any restrictions.
TRANSPORT-REGULATIONS	ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2024)
NATIONAL REGULATIONS (DE):	Hazardous Substances Ordinance - GefStoffV 21.07.2021; Detergent and Cleaning Agents Act - WRMG; Federal Water Act - WHG; Technical Rule for Hazardous Substances - TRGS: 200, 220, 615, 900, 905.
- Water hazard class	1, conf. AwSV, 18.04.2017
- Decree for case of interference, observe limits	not applicable
- Class. according to TA-Luft	5.2.5.
Storage class (TRGS 510)	Storage class 11 (VCI)
- Observe employment restrictions for people	Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.
- VOC (2010/75/CE)	0,5 %
- Other regulations	TRGS 510: Storage of hazardous substances in non-stationary containers

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
H318 Causes serious eye damage.
H413 May cause long lasting harmful effects to aquatic life.

Ammann Asphalt GmbH

31061 Alfeld (Leine)

Date printed 29.01.2024, Revision 29.01.2024

Version 3.0

Page 13 / 13

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ATE = acute toxicity estimate
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
EL50 = Median effective loading
ELINCS = European List of Notified Chemical Substances
EmS = Emergency Schedules
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform Chemical Information Database
IVIS = In vitro irritation score
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
LL50 = Median lethal loading
LQ = Limited Quantities
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
TLV®/TWA = Threshold limit value – time-weighted average
TLV®STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method)

Modified position

1.3, 3.2, 4.2, 6.1, 6.3, 8.1, 8.2, 9.1, 11.1, 11.2, 12.1, 12.2, 12.5, 12.6, 12.7, 15.1, 16.1, 16.2, 16.3