

# Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 17.12.2014

Version number 1

Revision: 16.12.2014

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

- 1.1 Product identifier
- Trade name: XD MONOGRADE 10W
- Article number: ARD013000
- 1.2 Relevant identified uses of the substance or mixture and uses advised against · Sector of Use  
 SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- Product category PC24 Lubricants, greases, release products ·  
 Process category  
 PROC2 Use in closed, continuous process with occasional controlled exposure  
 PROC8a Transfer of substance or preparation (charging/discharging) from /to vessels/large containers at non-dedicated facilities  
 PROC8b Transfer of substance or preparation (charging/discharging) from /to vessels/large containers at dedicated facilities  
 PROC20 Heat and pressure transfer fluids in dispersive, professional use but closed systems ·  
 Environmental release category  
 ERC9a Wide dispersive indoor use of substances in closed systems  
 ERC9b Wide dispersive outdoor use of substances in closed systems ·  
 Application of the substance / the mixture Engine oil
- 1.3 Details of the supplier of the safety data sheet  
 Manufacturer/Supplier:  
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- 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008 The product is not classified according to the CLP regulation.
- Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.
- Information concerning particular hazards for human and environment:  
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- Classification system:  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
  
- 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008 Void ·
- Hazard pictograms Void
- Signal word Void
- Hazard statements Void
- Additional information:  
EUH208 Contains Calcium Sulphonate. May produce an allergic reaction.  
EUH210 Safety data sheet available on request.
- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

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**SECTION 3: Composition/information on ingredients - 3.2**

Mixtures

- Dangerous components:

	Interchangeable low viscosity base oil (<20,5 cSt @40 °C) *	2.5-10%
	☠ Asp. Tox. 1, H304	
CAS: 84605-29-8 EINECS: 283-392-8 Reg.nr.: 01-2119493626-26	Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	0.1-1.0%
	☠ Xi R38-41; ☠ N R51/53	
	☠ Eye Dam. 1, H318; ☠ Aquatic Chronic 2, H411;	
	☠ Skin Irrit. 2, H315	

- Additional information:

\* Contains one or more of the following CAS-numbers: 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64741-97-5, 64742-01-4, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-65-0, 64742-71-8, 68037-01-4, 72623-83-7, 72623-85-9, 72623-86-0, 72623-87-1, 74869-22-0, 8042-47-5, 848301-69-9.

For the wording of the listed risk phrases refer to section 16.

**SECTION 4: First aid measures**

- 4.1 Description of first aid measures
- General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: Do not induce vomiting; call for medical help immediately.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed If swallowed or in case of vomiting, danger of entering the lungs.

**SECTION 5: Firefighting measures**

- 5.1 Extinguishing media
- Suitable extinguishing agents:  
CO<sub>2</sub>, dry chemical, or foam. Water can be used to cool and protect exposed material.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture Formation of toxic gases is possible during heating or in case of fire.
- 5.3 Advice for firefighters
- Protective equipment:  
Wear self-contained respiratory protective device.  
Wear fully protective suit.

**SECTION 6: Accidental release measures**

- 6.1 Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water. -
- 6.3 Methods and material for containment and cleaning up:  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Remove from the water surface (e.g. skim or suck off).
- 6.4 Reference to other sections  
No dangerous substances are released.  
See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## SECTION 7: Handling and storage

- 7.1 Precautions for safe handling  
No special measures required.  
Avoid the formation of oil haze.
- Information about fire - and explosion protection: No special measures required.
- 7.2 Conditions for safe storage, including any incompatibilities ·  
Storage:
  - Requirements to be met by storerooms and receptacles: Store only in the original receptacle. · Information about storage in one common storage facility: Not required.
  - Further information about storage conditions:  
Store in cool, dry conditions in well sealed receptacles.
- 7.3 Specific end use(s) No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:  
Contains mineral oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg per cubic meter, ACGIH STEL of 10 mg per cubic meter.
- Additional information: The lists valid during the making were used as basis.
- 8.2 Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures: Wash hands before breaks and at the end of work. ·
- Respiratory protection: Not required.
- Protection of hands:



Wear gloves for the protection against chemicals according to EN 374.

Oil resistant gloves

- Material of gloves  
Nitrile rubber, NBR
- PVC gloves
- Neoprene gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material

For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognise that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time may be acceptable so long as appropriate maintenance and replacement regimes are followed.

Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material.

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection: Goggles recommended during refilling

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Trade name: XD MONOGRADE 10W

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- Body protection: Protective work clothing

## SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties ·

### General Information

- Appearance:

Form:	Liquid
Colour:	Brown
· Odour:	Characteristic

- Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

- Drip point:

Pour point	-25 °C (ASTM D97)
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- Flash point:

&gt; 110 °C

- Flammability (solid, gaseous):

Not applicable.

- Self-igniting:

Product is not selfigniting.

- Danger of explosion:

Product does not present an explosion hazard.

- Explosion limits:

Lower:	0.6 Vol %
Upper:	7.0 Vol %

- Density at 20 °C:

0.886 g/cm<sup>3</sup>

- Solubility in / Miscibility with water:

Not miscible or difficult to mix.

- Partition coefficient (n-octanol/water): Not determined.

- Viscosity:

40 °C	84,9 mm <sup>2</sup> /s (ASTM D445)
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- Solvent content:

Organic solvents:	0.0 %
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- 9.2 Other information

No further relevant information available.

## SECTION 10: Stability and reactivity

- 10.1 Reactivity

- 10.2 Chemical stability

- Thermal decomposition / conditions to be avoided: To avoid thermal decomposition do not overheat.

- 10.3 Possibility of hazardous reactions Reacts with strong oxidising agents.

- 10.4 Conditions to avoid No further relevant information available.

- 10.5 Incompatible materials: No further relevant information available.

- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

## SECTION 11: Toxicological information

- 11.1 Information on toxicological effects

- Acute toxicity:

- Primary irritant effect:

- on the skin: No irritant effect.

- on the eye: No irritating effect.

- Sensitisation: No sensitising effects known.

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- Additional toxicological information:  
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.  
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
- Sensitisation For respiratory and skin sensitisation: Not expected to be a sensitiser.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)  
This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.

## SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available. ·  
Other information: The product is difficultly biodegradable.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Ecotoxicological effects:
- Remark:  
This material is not expected to be harmful to aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.
- Additional ecological information:
- General notes:  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- 12.5 Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

## SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
- Recommendation  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- European waste catalogue  
13 02 05\* mineral-based non-chlorinated engine, gear and lubricating oils
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

## SECTION 14: Transport information

- |                                |      |
|--------------------------------|------|
| · 14.1 UN-Number               |      |
| · ADR, ADN, IMDG, IATA         | Void |
| · 14.2 UN proper shipping name |      |
| · ADR, ADN, IMDG, IATA         | Void |

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|--|------|
| · 14.3 Transport hazard class(es)  |      |
| · ADR, ADN, IMDG, IATA   |      |
| · Class  | Void |
| · 14.4 Packing group   |      |
| · ADR, IMDG, IATA  |      |
| · 14.5 Environmental hazards:  |      |
| · Marine pollutant:  | No   |
| · 14.6 Special precautions for user  |      |
| Not applicable.  |      |
| · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code |      |
| Not applicable.  |      |
| · UN "Model Regulation":   |      |
| -  |      |

## SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations:
- Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
  - H304 May be fatal if swallowed and enters airways.
  - H315 Causes skin irritation.
  - H318 Causes serious eye damage.
  - H411 Toxic to aquatic life with long lasting effects.
  - R38 Irritating to skin.
  - R41 Risk of serious damage to eyes.
  - R51/53 Toxic to aquatic organisms , may cause long -term adverse effects in the aquatic environment.
- Department issuing MSDS: Product safety department. ·  
Contact: Product safety department
- Abbreviations and acronyms:
  - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  - ICAO: International Civil Aviation Organisation
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  - Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
  - Asp. Tox. 1: Aspiration hazard, Hazard Category 1
  - Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
- Sources
  - 67/548/EEC
  - 99/45/EEC
  - EC/453-2010

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

- 1.1 Product identifier
- Trade name: XD MONOGRADE 20W
- Article number: ARD013001
- 1.2 Relevant identified uses of the substance or mixture and uses advised against · Sector of Use  
 SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- Product category PC24 Lubricants, greases, release products ·  
 Process category  
 PROC2 Use in closed, continuous process with occasional controlled exposure  
 PROC8a Transfer of substance or preparation (charging/discharging) from /to vessels/large containers at non-dedicated facilities  
 PROC8b Transfer of substance or preparation (charging/discharging) from /to vessels/large containers at dedicated facilities  
 PROC20 Heat and pressure transfer fluids in dispersive, professional use but closed systems ·  
 Environmental release category  
 ERC9a Wide dispersive indoor use of substances in closed systems  
 ERC9b Wide dispersive outdoor use of substances in closed systems ·  
 Application of the substance / the mixture Engine oil
- 1.3 Details of the supplier of the safety data sheet ·  
 Manufacturer/Supplier:  
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- 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008 The product is not classified according to the CLP regulation.
- Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.
- Information concerning particular hazards for human and environment:  
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- Classification system:  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
  
- 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008 Void
- Hazard pictograms Void
- Signal word Void
- Hazard statements Void
- Additional information:  
EUH208 Contains Calcium Sulphonate. May produce an allergic reaction.  
EUH210 Safety data sheet available on request.
- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

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**SECTION 3: Composition/information on ingredients - 3.2**

Mixtures

- Dangerous components:

	Interchangeable low viscosity base oil (<20,5 cSt @40 °C) * 2.5-10%	
	☠ Asp. Tox. 1, H304	
CAS: 84605-29-8 EINECS: 283-392-8 Reg.nr.: 01-2119493626-26	Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	0.1-1.0%
	☠ Xi R38-41; ☠ N R51/53	
	☠ Eye Dam. 1, H318; ☠ Aquatic Chronic 2, H411;	
	☠ Skin Irrit. 2, H315	

- Additional information:

\* Contains one or more of the following CAS-numbers: 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64741-97-5, 64742-01-4, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-65-0, 64742-71-8, 68037-01-4, 72623-83-7, 72623-85-9, 72623-86-0, 72623-87-1, 74869-22-0, 8042-47-5, 848301-69-9.

For the wording of the listed risk phrases refer to section 16.

**SECTION 4: First aid measures**

- 4.1 Description of first aid measures
- General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: Do not induce vomiting; call for medical help immediately.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed If swallowed or in case of vomiting, danger of entering the lungs.

**SECTION 5: Firefighting measures**

- 5.1 Extinguishing media
- Suitable extinguishing agents:  
CO<sub>2</sub>, dry chemical, or foam. Water can be used to cool and protect exposed material.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture Formation of toxic gases is possible during heating or in case of fire.
- 5.3 Advice for firefighters
- Protective equipment:  
Wear self-contained respiratory protective device.  
Wear fully protective suit.

**SECTION 6: Accidental release measures**

- 6.1 Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up:  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Remove from the water surface (e.g. skim or suck off).
- 6.4 Reference to other sections  
No dangerous substances are released.  
See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## SECTION 7: Handling and storage

- 7.1 Precautions for safe handling  
No special measures required.  
Avoid the formation of oil haze.
- Information about fire - and explosion protection: No special measures required.
- 7.2 Conditions for safe storage, including any incompatibilities ·  
Storage:
  - Requirements to be met by storerooms and receptacles: Store only in the original receptacle. · Information about storage in one common storage facility: Not required.
  - Further information about storage conditions:  
Store in cool, dry conditions in well sealed receptacles.
- 7.3 Specific end use(s) No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:  
Contains mineral oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg per cubic meter, ACGIH STEL of 10 mg per cubic meter.
- Additional information: The lists valid during the making were used as basis.
- 8.2 Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures: Wash hands before breaks and at the end of work. ·
- Respiratory protection: Not required.
- Protection of hands:



Wear gloves for the protection against chemicals according to EN 374.

Oil resistant gloves

- Material of gloves  
Nitrile rubber, NBR  
PVC gloves  
Neoprene gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material

For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognise that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time may be acceptable so long as appropriate maintenance and replacement regimes are followed.

Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material.

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection: Goggles recommended during refilling

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- Body protection: Protective work clothing

## SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties ·

### General Information

- Appearance:

Form:	Liquid
Colour:	Brown
· Odour:	Characteristic

- Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

- Drip point:

Pour point	-25 °C (ASTM D97)
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- Flash point:

&gt; 110 °C

- Flammability (solid, gaseous):

Not applicable.

- Self-igniting:

Product is not selfigniting.

- Danger of explosion:

Product does not present an explosion hazard.

- Explosion limits:

Lower:	0.6 Vol %
Upper:	7.0 Vol %

- Density at 20 °C:

0.886 g/cm<sup>3</sup>

- Solubility in / Miscibility with water:

Not miscible or difficult to mix.

- Partition coefficient (n-octanol/water): Not determined.

- Viscosity:

40 °C	84,9 mm <sup>2</sup> /s (ASTM D445)
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- Solvent content:

Organic solvents:	0.0 %
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- 9.2 Other information

No further relevant information available.

## SECTION 10: Stability and reactivity

- 10.1 Reactivity

- 10.2 Chemical stability

- Thermal decomposition / conditions to be avoided: To avoid thermal decomposition do not overheat.

- 10.3 Possibility of hazardous reactions Reacts with strong oxidising agents.

- 10.4 Conditions to avoid No further relevant information available.

- 10.5 Incompatible materials: No further relevant information available.

- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

## SECTION 11: Toxicological information

- 11.1 Information on toxicological effects

- Acute toxicity:

- Primary irritant effect:

- on the skin: No irritant effect.

- on the eye: No irritating effect.

- Sensitisation: No sensitising effects known.

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Trade name: XD MONOGRADE 20W

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- Additional toxicological information:  
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.  
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
- Sensitisation For respiratory and skin sensitisation: Not expected to be a sensitiser.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)  
This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.

## SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available. ·  
Other information: The product is difficultly biodegradable.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Ecotoxicological effects:
- Remark:  
This material is not expected to be harmful to aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.
- Additional ecological information:
- General notes:  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- 12.5 Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

## SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
- Recommendation  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- European waste catalogue  
13 02 05\* mineral-based non-chlorinated engine, gear and lubricating oils
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

## SECTION 14: Transport information

- |                                |      |
|--------------------------------|------|
| · 14.1 UN-Number               |      |
| · ADR, ADN, IMDG, IATA         | Void |
| · 14.2 UN proper shipping name |      |
| · ADR, ADN, IMDG, IATA         | Void |

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according to 1907/2006/EC, Article 31

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Version number 1

Revision: 16.12.2014

Trade name: XD MONOGRADE 20W

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- |  |      |
|--|------|
| · 14.3 Transport hazard class(es)  |      |
| · ADR, ADN, IMDG, IATA   |      |
| · Class  | Void |
| · 14.4 Packing group   |      |
| · ADR, IMDG, IATA  |      |
| · 14.5 Environmental hazards:  |      |
| · Marine pollutant:  | No   |
| · 14.6 Special precautions for user  |      |
| Not applicable.  |      |
| · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code |      |
| Not applicable.  |      |
| · UN "Model Regulation":   |      |
| -  |      |

## SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations:
- Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
  - H304 May be fatal if swallowed and enters airways.
  - H315 Causes skin irritation.
  - H318 Causes serious eye damage.
  - H411 Toxic to aquatic life with long lasting effects.
  - R38 Irritating to skin.
  - R41 Risk of serious damage to eyes.
  - R51/53 Toxic to aquatic organisms , may cause long -term adverse effects in the aquatic environment.
- Department issuing MSDS: Product safety department.
- Contact: Product safety department
- Abbreviations and acronyms:
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  - ICAO: International Civil Aviation Organisation
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  - Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
  - Asp. Tox. 1: Aspiration hazard, Hazard Category 1
  - Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
- Sources
  - 67/548/EEC
  - 99/45/EEC
  - EC/453-2010

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## SECTION 1: Identification of the substance/mixture and of the company/undertaking · 1.1

### Product identifier

· Trade name: XD MONOGRADE 30

· Article number: ARD013002

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

#### Sector of Use

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

· Product category PC24 Lubricants, greases, release products ·

#### Process category

PROC2 Use in closed, continuous process with occasional controlled exposure

PROC8a Transfer of substance or preparation (charging/discharging) from /to vessels/large containers at non-dedicated facilities

PROC8b Transfer of substance or preparation (charging/discharging) from /to vessels/large containers at dedicated facilities

PROC20 Heat and pressure transfer fluids in dispersive, professional use but closed systems ·

#### Environmental release category

ERC9a Wide dispersive indoor use of substances in closed systems

ERC9b Wide dispersive outdoor use of substances in closed systems ·

Application of the substance / the mixture Engine oil

· 1.3 Details of the supplier of the safety data sheet ·

Manufacturer/Supplier: 907-

1030 West Georgia St.

Vancouver, BC, Canada, V6E 2Y3

sales@Fildex.com

+1 888 909 0808

· Further information obtainable from: Product safety department - +1 888 909 0808.

· 1.4 Emergency telephone number: +1 604 691 1775 (9:30 AM to 6 PM, Monday to Friday)

## SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008

The product is not classified according to the CLP regulation.

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.

· Information concerning particular hazards for human and environment:

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008 Void ·

Hazard pictograms Void

· Signal word Void

· Hazard statements Void

· Additional information:

EUH208 Contains Calcium Sulphonate. May produce an allergic reaction.

EUH210 Safety data sheet available on request.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

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**SECTION 3: Composition/information on ingredients - 3.2**

Mixtures

- Dangerous components:

	Interchangeable low viscosity base oil (<20,5 cSt @40 °C) * 2.5-10%	
	☠ Asp. Tox. 1, H304	
CAS: 84605-29-8 EINECS: 283-392-8 Reg.nr.: 01-2119493626-26	Phosphorodithioic acid, mixed O,O-bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts	0.1-1.0%
	☠ Xi R38-41; ☠ N R51/53	
	☠ Eye Dam. 1, H318; ☠ Aquatic Chronic 2, H411;	
	☠ Skin Irrit. 2, H315	

- Additional information:

\* Contains one or more of the following CAS-numbers: 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64741-97-5, 64742-01-4, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-65-0, 64742-71-8, 68037-01-4, 72623-83-7, 72623-85-9, 72623-86-0, 72623-87-1, 74869-22-0, 8042-47-5, 848301-69-9.

For the wording of the listed risk phrases refer to section 16.

**SECTION 4: First aid measures**

- 4.1 Description of first aid measures
- General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: Do not induce vomiting; call for medical help immediately.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed If swallowed or in case of vomiting, danger of entering the lungs.

**SECTION 5: Firefighting measures**

- 5.1 Extinguishing media
- Suitable extinguishing agents:  
CO<sub>2</sub>, dry chemical, or foam. Water can be used to cool and protect exposed material.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture Formation of toxic gases is possible during heating or in case of fire.
- 5.3 Advice for firefighters
- Protective equipment:  
Wear self-contained respiratory protective device.  
Wear fully protective suit.

**SECTION 6: Accidental release measures**

- 6.1 Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up:  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Remove from the water surface (e.g. skim or suck off).
- 6.4 Reference to other sections  
No dangerous substances are released.  
See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## SECTION 7: Handling and storage

- 7.1 Precautions for safe handling  
No special measures required.  
Avoid the formation of oil haze.
- Information about fire - and explosion protection: No special measures required.
- 7.2 Conditions for safe storage, including any incompatibilities ·  
Storage:
  - Requirements to be met by storerooms and receptacles: Store only in the original receptacle. · Information about storage in one common storage facility: Not required.
  - Further information about storage conditions:  
Store in cool, dry conditions in well sealed receptacles.
- 7.3 Specific end use(s) No further relevant information available.

## SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:  
Contains mineral oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg per cubic meter, ACGIH STEL of 10 mg per cubic meter.
- Additional information: The lists valid during the making were used as basis.
- 8.2 Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures: Wash hands before breaks and at the end of work. ·
- Respiratory protection: Not required.
- Protection of hands:



Wear gloves for the protection against chemicals according to EN 374.

Oil resistant gloves

- Material of gloves  
Nitrile rubber, NBR  
PVC gloves  
Neoprene gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material

For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognise that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time may be acceptable so long as appropriate maintenance and replacement regimes are followed.

Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material.

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection: Goggles recommended during refilling

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- Body protection: Protective work clothing

## SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties ·

### General Information

- Appearance:

Form:	Liquid
Colour:	Brown
· Odour:	Characteristic

- Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

- Drip point:

Pour point	-25 °C (ASTM D97)
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- Flash point:

&gt; 110 °C

- Flammability (solid, gaseous):

Not applicable.

- Self-igniting:

Product is not selfigniting.

- Danger of explosion:

Product does not present an explosion hazard.

- Explosion limits:

Lower:	0.6 Vol %
Upper:	7.0 Vol %

- Density at 20 °C:

0.886 g/cm<sup>3</sup>

- Solubility in / Miscibility with water:

Not miscible or difficult to mix.

- Partition coefficient (n-octanol/water): Not determined.

- Viscosity:

40 °C	84,9 mm <sup>2</sup> /s (ASTM D445)
-------	-------------------------------------

- Solvent content:

Organic solvents:	0.0 %
-------------------	-------

- 9.2 Other information

No further relevant information available.

## SECTION 10: Stability and reactivity

- 10.1 Reactivity

- 10.2 Chemical stability

- Thermal decomposition / conditions to be avoided: To avoid thermal decomposition do not overheat.

- 10.3 Possibility of hazardous reactions Reacts with strong oxidising agents.

- 10.4 Conditions to avoid No further relevant information available.

- 10.5 Incompatible materials: No further relevant information available.

- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

## SECTION 11: Toxicological information

- 11.1 Information on toxicological effects

- Acute toxicity:

- Primary irritant effect:

- on the skin: No irritant effect.

- on the eye: No irritating effect.

- Sensitisation: No sensitising effects known.

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- Additional toxicological information:  
The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.  
When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.
- Sensitisation For respiratory and skin sensitisation: Not expected to be a sensitiser.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)  
This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.

## SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available. ·  
Other information: The product is difficultly biodegradable.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Ecotoxicological effects:
- Remark:  
This material is not expected to be harmful to aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.
- Additional ecological information:
- General notes:  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- 12.5 Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

## SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
- Recommendation  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- European waste catalogue  
13 02 05\* mineral-based non-chlorinated engine, gear and lubricating oils
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

## SECTION 14: Transport information

- |                                |      |
|--------------------------------|------|
| · 14.1 UN-Number               |      |
| · ADR, ADN, IMDG, IATA         | Void |
| · 14.2 UN proper shipping name |      |
| · ADR, ADN, IMDG, IATA         | Void |

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- |  |      |
|--|------|
| · 14.3 Transport hazard class(es)  |      |
| · ADR, ADN, IMDG, IATA   |      |
| · Class  | Void |
| · 14.4 Packing group   |      |
| · ADR, IMDG, IATA  |      |
| · 14.5 Environmental hazards:  |      |
| · Marine pollutant:  | No   |
| · 14.6 Special precautions for user  |      |
| Not applicable.  |      |
| · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code |      |
| Not applicable.  |      |
| · UN "Model Regulation":   |      |
| -  |      |

## SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations:
- Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
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  - H315 Causes skin irritation.
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- Sources
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  - EC/453-2010