

SAFETY DATA SHEETS

This SDS packet was issued with item:

071030717

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

071030311 071030329 071200385 078913963 51016674 51669209

Kluber Lubrication Munchen KG

Patterson Dental Supply Product Code:
030725,71030717

SECTION 1 : CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: W & H Service Oil
Manufacturer Name: Kluber Lubrication Munchen KG
Address:

GeisenhausenerstraBe 7
D-81379 Munchen

Emergency telephone no.: ++49-89-7876-0
Business Phone: ++49-89-7876-0 telephone exchange
Business Fax: ++49-89-7876-333
For information in North America, call: ++49-89-7876-0 telephone exchange
Manufacturer MSDS Revision Date: 29.8.1997

Safety Data Sheet conformable to EC directive 91/155 EEC

Product Codes:
028073

SECTION 2 : COMPOSITION, INFORMATION ON INGREDIENTS

Composition/Information:
Chemical characterization: (preparation)
synthetic hydrocarbon oil, ester oil

Additional information: None

SECTION 3 : HAZARDS IDENTIFICATION

No particular hazards known.

SECTION 4 : FIRST AID MEASURES

Eye Contact:
Rinse with plenty of water.
Skin Contact:
Wash off with soap and plenty of water.
Inhalation:

Not applicable
Ingestion:
Do not induce vomiting. Obtain medical attention.
Note to Physicians:
Treat symptomatically. If swallowed or in the event of vomiting,
risk of product entering the lungs.

SECTION 5 : FIRE FIGHTING MEASURES

Fire:
Advice on protection against fire and explosion:
No special precautions required.
Flash Point:
Approx. 200 deg C
Flash Point Method:
DIN ISO 2592
Upper Flammable or Explosive Limit:
Not applicable
Lower Flammable or Explosive Limit:
Not applicable
Auto Ignition Temperature:
Not applicable deg C; Not applicable deg F
Extinguishing Media:
Water spray, foam, dry powder, carbon dioxide (CO2)
Unsuitable Media:
High volume water jet
Fire Fighting Equipment:
Standard procedure for chemical fires.
Additional Information:
Water mist may be used to cool closed containers. In the event of
fire and/or explosion do not breathe fumes.

Special hazards:
In case of fire the following can be released: Carbon monoxide,
hydrocarbons

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal Precautions:
Risk of slipping due to leakage/spillage of product.
Spill Cleanup Measures:
Soak up with inert absorbent material (e.g. sand, silica gel, acid
binder, universal binder, sawdust). Dispose of absorbed material in
accordance with the regulations.
Environmental Precautions:
Do not flush into surface water or sanitary sewer system.

Additional information:
None

SECTION 7 : HANDLING and STORAGE

Handling:

Advice on safe handling:
Avoid formation of aerosol.

Storage:

Requirements on storage rooms and vessels:
No special storage conditions required

Incompatible materials:

Incompatible with oxidizing agents.

Further information on storage conditions:

Store at room temperature in the original container.

Advice on protection against fire and explosion:
No special precautions required.

SECTION 8 : EXPOSURE CONTROLS, PERSONAL PROTECTION

Hand Protection Description:

No special protective equipment required.

Eye/Face Protection:

No special protective equipment required.

Protective Clothing/Body Protection:

No special protective equipment required.

Respiratory Protection:

No special protective equipment required.

Other Protective:

No special protective equipment required.

Additional advice on system design: not applicable

Ingredients and specific control parameters: None

General protection and hygiene measures:

Clean skin thoroughly after work; apply skin cream.
Do not inhale aerosol.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Physical State/Appearance:

Liquid

Color:

Colourless

Odor:

Mint-like

Vapor Pressure:

First: Not applicable

Solubility:

Water solubility: Insoluble

Density:

Approx 0.84 g/cm³, 20 deg C

Test Method: DIN 51757
Viscosity:
Kinematic: approx. 15 mm²/s, 40 deg C
Test Method: DIN 51562
Pour Point:
Test method: DIN ISO 3016
Flashpoint:
Approx. 200 deg C
Auto Ignition Temp:
Not applicable deg C; Not applicable deg F
Upper Flammable Explosive Limit:
Not applicable
Lower Flammable Explosive Limit:
Not applicable

Flash point: approx. 200 deg C
Test method: DIN ISO 2592

Ignition temperature: Not applicable deg C; Not applicable F

Explosive properties:
Lower explosion limit: Not applicable
Upper explosion limit: Not applicable

Further information: None

SECTION 10 : STABILITY AND REACTIVITY

Conditions to Avoid:
Do not heat above flash point.
Incompatibilities with Other Materials:
Materials to avoid: strong oxidizing agents
Hazardous Decomposition Products:
None under normal use.

Additional information:
None

SECTION 11 : TOXICOLOGICAL INFORMATION

Applies to All Ingredients:
Ingestion Effects:
LD50/oral/rat = > 2 g/kg (literature data)
Chronic Effects:
None
Other Toxicological Information:
Human experience: Health injuries are not known or expected under normal use.
Toxicological Paragraph:
The toxicological data has been taken from products of similar composition.

SECTION 12 : ECOLOGICAL INFORMATION

Ecotoxicity:

The product has not been tested.

Effect of Material On Aquatic Life:

Aquatic toxicity is unlikely due to low solubility.

Information on elimination (persistence and degradability):
Product is insoluble in water. May be separated out mechanically in purification plants.

Behaviour in environmental compartments:

Ecological injuries are not known or expected under normal use.

Additional information:

Should not be released into the environment.

SECTION 13 : DISPOSAL CONSIDERATIONS

Waste Disposal:

Dispose of in accordance with your local, state and federal regulations as used oil for reconditioning.

Dispose of contaminated packaging and recommended cleaning:
Offer rinsed packaging material to local recycling facilities.

SECTION 14 : TRANSPORT INFORMATION

IATA:

IATA-DGR: not applicable

Maritime Transportation CGVS/GGVE/IMDG: Code: not applicable

Land transport:

GGVS/GGVE: not applicable

Inland waterways transport:

ADN/ADNR: not applicable

Air transport:

ICAO: not applicable

Further information:

Not classified as dangerous in the meaning of transport regulations.

SECTION 15 : REGULATORY INFORMATION

Applies to all ingredients:
European Community Chemical Inventory Status:
Conformable to EC directive 91/155 EEC

Labelling according to EU-guidelines:
The product does not require a hazard warning label in accordance
with EC directives/German regulations on dangerous substances.

All components are accepted by LMBG (Germany) and/or FDA (USA).

SECTION 16 : ADDITIONAL INFORMATION

MSDS Revision Date:
29.8.1997

Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid if the material is used in combination with any other materials or if it is processed, unless specified in the text.

Issue-department of safety Data Sheet: Chemical Documentation.
Tel.: +19-89-7876-564

Issue Date 27-Jan-2015

Revision Date 27-Jan-2015

Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name W & H Serviceoil F1 MD 200

Other means of identification

Product code: 028114

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Lubricant.

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address

Klüber Lubrication NA, LP
32 Industrial Drive
Londonderry, NH 03053
Phone: (603) 647-4104
Fax: (603) 647-4106

Emergency telephone number

Emergency Telephone CHEMTREC: 1-800-424-9300; INTERNATIONAL: (703) 527-3887

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

EMERGENCY OVERVIEW

The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance Oil

Physical state Liquid

Odor Mild

Hazards not otherwise classified (HNOC)

Other information

- Harmful to aquatic life with long lasting effects

Unknown Acute Toxicity

18.695% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Components	CAS-No	Weight %	Trade Secret
2,6-Di-t-butyl-4-methylphenol (BHT)	128-37-0	< 0.25	*

4. FIRST AID MEASURES

First aid measures

Eye contact:	Flush eye with water for 15 minutes. If symptoms persist, call a physician.
Skin contact:	Rinse with plenty of water. If skin irritation persists, call a physician.
Inhalation:	Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If symptoms persist, call a physician.
Ingestion:	Do not induce vomiting. Consult a physician.

Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
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Indication of any immediate medical attention and special treatment needed

Notes to physician:	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Carbon dioxide (CO₂). Dry chemical. Dry sand. Water spray mist or foam.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire

Specific hazards arising from the chemical

In the event of fire and/or explosion do not breathe fumes. Water may be used to cool closed containers.

Hazardous combustion products Carbon oxides.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Special protective equipment for firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Standard procedure for chemical fires.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions:	Contaminated surfaces will be extremely slippery. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.
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Environmental precautions

Environmental precautions:	Do not allow material to contaminate ground water system. Prevent product from entering drains.
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Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up:	Soak up with oil absorbent material. Pick up and transfer to properly labelled containers. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Do not breathe vapors or spray mist. Avoid contact with eyes and skin. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store in original container. Keep tightly closed in a dry and cool place. Keep in properly labelled containers. Keep away from direct sunlight

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines Contains mineral oil, vegetable oil, and/or synthetic oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg/m³, ACGIH STEL of 10 mg/m³.

Components	ACGIH TLV	OSHA (TWA mg/m ³):	IDLH:
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	2 mg/m ³ (Inhalable fraction and vapor)	(vacated) TWA: 10 mg/m ³	

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Respiratory protection: No personal respiratory protective equipment normally required.
Hand protection: Gloves made of plastic or rubber
Eye protection: Safety glasses with side-shields
Skin and body protection: Usual safety precautions while handling the product will provide adequate protection against this potential effect
General Hygiene Considerations Avoid contact with skin, eyes and clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid
Appearance Oil
Odor Mild
Color Yellow
Odor threshold No information available

Property	Values	Remarks • Method	pH	Not applicable
Melting point/freezing point	No information available		Boiling point / boiling range	No information available
Flash point	> 200 °C / > 392 °F	Cleveland Open Cup	Evaporation rate	No information available
Flammability (solid, gas)	No information available		Flammability Limit in Air	
Upper flammability limit:	No information available		Lower flammability limit:	No information available
Vapor pressure	< 0.001 hPa, 20°C		Vapor density	No information available
Specific Gravity	0.84		Water solubility	Insoluble in water
Solubility in other solvents	No information available		Partition coefficient	No information available
Autoignition temperature	No information available		Decomposition temperature	No information available

Kinematic viscosity	25 mm ² /s @ 40 °C	Dynamic viscosity	No information available
Explosive properties	No information available		
Oxidizing properties	No information available		

Other information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity

Not applicable

Chemical stability

Stability	Stable under normal conditions
Possibility of Hazardous Reactions	

Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.

Conditions to avoid

Conditions to avoid	No special storage conditions required
Hazardous Decomposition Products	

Hazardous Decomposition Products	None under normal processing
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Incompatible materials

Incompatible materials	Strong oxidising agents
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11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Product does not present an acute toxicity hazard based on known or supplied information
Eye contact	May cause slight irritation.
Skin contact	Prolonged contact may cause redness and irritation.
Inhalation	Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Components	Oral LD50	Dermal LD50	Inhalation LC50
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	= 2,930 mg/kg (Rat)	> 2,000 mg/kg (Rat)	-

Information on toxicological effects**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

Sensitization	No sensitization responses were observed.
Mutagenic effects:	Did not show mutagenic or teratogenic effects in animal experiments.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.
Components	2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0

ACGIH	-
IARC:	Group 3
NTP Report on Carcinogens List -	-
OSHA	-

Reproductive toxicity This product does not contain any known or suspected reproductive hazards.
STOT - Single Exposure None under normal use conditions.
STOT - Repeated Exposure None under normal use conditions.
Aspiration hazard Not applicable.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 18.695% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 5052 mg/kg
ATEmix (dermal) 5052 mg/kg
ATEmix (inhalation-dust/mist) 5.4 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects

0.625% of the mixture consists of components(s) of unknown hazards to the aquatic environment

2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	
Algae/aquatic plants	6: 72 h Pseudokirchneriella subcapitata mg/L EC50 0.42: 72 h Desmodemus subspicatus mg/L EC50
Fish	0.464 mg/l, 96 h, Fish
Crustacea	0.386 mg/l, 48 h, Daphnia magna

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

The product is insoluble and floats on water.

Components	Partition coefficient
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	4.17

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

DOT Not Regulated

IATA-DGR Not Regulated

IMO / IMDG

Not Regulated

15. REGULATORY INFORMATION**International Inventories****TSCA:**

Listed in TSCA

DSL:

Not listed in DSL

Legend:**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List**Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

State Regulations (RTK)**California Proposition 65**

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Components	NJRTK:	MARTK:	PARTK:
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	Substance no. 0814 Listed.	Listed.	Listed.

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION**Nfpa:**

Health: 1

Flammability: 1

Instability 0

NFPA/HMIS * for Carc, Muta, Tera, Specific Organ *

HMIS health rating:

Health: 1

Flammability: 1

Physical hazards 0

Personal protection B

Issue Date 27-Jan-2015

Revision Date 27-Jan-2015

Revision Note

Not applicable

Disclaimer

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End of Safety Data Sheet

ICX[®]
by A-dec, Inc.

MATERIAL SAFETY DATA SHEET

SECTION 1 - GENERAL INFORMATION

ORIGINAL DATE OF ISSUE: 9/15/2003

Product Name:
ICX[®] by A-dec, Inc. - Dental Unit Water Treatment Product
EPA Registration No.: 79662-1

Manufacturer: A-dec, Inc. 2601 Crestview Dr. Newberg, OR 97132 www.a-dec.com	Telephone: 800-547-1883 Fax: 503-537-2702
	Emergency Telephone: 503-538-9471
	INFOTRAC: 1-800-535-5053

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and complies with 91/155/EWG for the EU.

SECTION 2 - COMPOSITION

Ingredient Name:	Weight Range:	CAS Number:	EC Number:
Sodium Percarbonate	5 – 15%	15630-89-4	239-707-6
Cationic Surfactants	1 – 3%	68391-01-5	269-919-4
		68956-79-6	273-318-2
Silver Nitrate	0.1 – 0.5%	7761-88-8	231-853-9
Other Ingredients	Components not precisely identified are proprietary or non-hazardous		

SECTION 3 - PHYSICAL DATA

Physical State	Solid (tablet)	Odor	Nil
Color	White	pH (0.01% in distilled water; in-use concentration)	5.2-6.2
Bulk Density	1.5 – 1.7 g/cm ³	Vapor Density (AIR =1)	N/A
Vapor Pressure	N/A	Solubility in water	Complete
Boiling Point	N/A	Melting Point	Unknown

SECTION 4 - FIRE AND EXPLOSION DATA

Flash Point	N/A
Flammable Limits	N/A
Extinguishing Media	Water, CO ₂ or dry chemical.
Special Fire Fighting Instructions	Oxidizing substance.
Fire and Explosion Hazards	None

SECTION 5 - PHYSICAL HAZARDS (REACTIVITY DATA)

Stability	Stable
Conditions to Avoid	Water, heat, reducing agents.
Incompatibility	N/A
Hazardous Decomposition or By-Products	N/A
Hazardous Polymerization	Will not occur.

SECTION 6 - HEALTH HAZARDS

Eyes:	Causes eye irritation. Avoid contact with eyes. Wear protective eyewear. Wash hands thoroughly after handling.
Skin:	May cause skin irritation. Avoid contact with skin. Wash hands thoroughly with soap and water after handling. Remove contaminated clothing, and wash hands and clothing before reuse.
Inhalation:	None known.
Ingestion:	May be harmful if swallowed. Do not taste or swallow. Wash hands thoroughly after handling.

SECTION 7 - FIRST AID

If in eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If on skin:	Take off contaminated clothing. Rinse skin immediately with water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If inhaled:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
If ingested:	Loosen tight clothing such as a collar, tie, belt or waistband. Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

SECTION 8 – ACCIDENTAL RELEASE MEASURES

Spills and Leaks:	Recover dry if possible. Clean the area with large quantities of water. Comply with Federal, State or local regulations on reporting spills.
Waste Disposal:	Collect the product with suitable means. Avoid incompatible materials.
Environmental Hazards:	None known. No environmental disturbance is expected from biodegradation. No dangerous product transportation regulations apply.

SECTION 9 - HANDLING AND STORAGE

Keep in a closed container in a cool, dry, ventilated area when not in use. Avoid contact with water until ready for use. Protect against physical damage. All cleaners and pesticides should be kept out of the reach of children and stored away from food. Avoid touching tablet with unprotected skin.

SECTION 10 - TOXICOLOGICAL INFORMATION

Oral rat LD 50:	>5000 mg/kg
Inhalation rat LC 50:	>2.09 mg/L
Skin rabbit LD 50:	>5000 mg/kg
Sensitization:	Not applicable.

SECTION 11 – OTHER INFORMATION

This product contains Silver Nitrate, which is subject to the reporting requirements under SARA Title III, Section 313 of the Emergency Planning and Community Right-To-Know Act.

Disclaimer:

A-dec, Inc. provides the information contained herein in good faith, but makes no representation as to the comprehensiveness or accuracy of properties as provided by chemical manufacturers. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer's (or user's) responsibility to ensure that its activities comply with Federal, State and local laws.

SECTION 12 - MSDS PREPARATION

Prepared by:	Deanna Gilbreath Scientific & Regulatory Consultants, Inc.
Reviewed & Updated:	November 28, 2011 Tom Louisell, A-dec, Inc.



SAFETY DATA SHEET

Issue Date 27-Jan-2015

Revision Date 27-Jan-2015

Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name W & H Service Oil F1 MD 500

Other means of identification

Product code: 028073

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Lubricant.

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address

Klüber Lubrication NA, LP
32 Industrial Drive
Londonderry, NH 03053
Phone: (603) 647-4104
Fax: (603) 647-4106

Emergency telephone number

Emergency Telephone CHEMTREC: 1-800-424-9300; INTERNATIONAL: (703) 527-3887

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

EMERGENCY OVERVIEW

The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance Oil

Physical state Liquid

Odor Mild

Hazards not otherwise classified (HNOC)

Other information

- Harmful to aquatic life with long lasting effects

Unknown Acute Toxicity

23.1% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Components	CAS-No	Weight %	Trade Secret
1-Decene, dimer, hydrogenated	68649-11-6	1-10	*
2,6-Di-t-butyl-4-methylphenol (BHT)	128-37-0	< 0.25	*

4. FIRST AID MEASURES

First aid measures

Eye contact:	Flush eye with water for 15 minutes. If symptoms persist, call a physician.
Skin contact:	Rinse with plenty of water. If skin irritation persists, call a physician.
Inhalation:	Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If symptoms persist, call a physician.
Ingestion:	Do not induce vomiting. Consult a physician.

Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
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Indication of any immediate medical attention and special treatment needed

Notes to physician:	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Carbon dioxide (CO₂). Dry chemical. Dry sand. Water spray mist or foam.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire

Specific hazards arising from the chemical

In the event of fire and/or explosion do not breathe fumes. Water may be used to cool closed containers.

Hazardous combustion products Carbon oxides.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Special protective equipment for firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Standard procedure for chemical fires.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions:	Contaminated surfaces will be extremely slippery. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.
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Environmental precautions

Environmental precautions:	Do not allow material to contaminate ground water system. Prevent product from entering drains.
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Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up:	Soak up with oil absorbent material. Pick up and transfer to properly labelled containers. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Do not breathe vapors or spray mist. Avoid contact with eyes and skin. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store in original container. Keep tightly closed in a dry and cool place. Keep in properly labelled containers. Keep away from direct sunlight

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines Contains mineral oil, vegetable oil, and/or synthetic oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg/m³, ACGIH STEL of 10 mg/m³.

Components	ACGIH TLV	OSHA (TWA mg/m ³):	IDLH:
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	2 mg/m ³ (Inhalable fraction and vapor)	(vacated) TWA: 10 mg/m ³	

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Respiratory protection: No personal respiratory protective equipment normally required.
Hand protection: Gloves made of plastic or rubber
Eye protection: Safety glasses with side-shields
Skin and body protection: Usual safety precautions while handling the product will provide adequate protection against this potential effect
General Hygiene Considerations Avoid contact with skin, eyes and clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid
Appearance Oil
Odor Mild
Color Yellow
Odor threshold No information available

Property	Values	Remarks • Method	pH	Not applicable
Melting point/freezing point	No information available		Boiling point / boiling range	No information available
Flash point	> 200 °C / > 392 °F	ISO 2592	Evaporation rate	No information available
Flammability (solid, gas)	No information available		Flammability Limit in Air	
Upper flammability limit:	No information available		Lower flammability limit:	No information available
Vapor pressure	< 0.17 hPa, 20°C		Vapor density	No information available
Specific Gravity	0.84		Water solubility	Insoluble in water
Solubility in other solvents	No information available		Partition coefficient	No information available

Autoignition temperature	No information available	Decomposition temperature	No information available
Kinematic viscosity	22 mm ² /s @ 40 °C	Dynamic viscosity	No information available
Explosive properties	No information available		
Oxidizing properties	No information available		

Other information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY**Reactivity**

Not applicable

Chemical stability

Stability	Stable under normal conditions
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Possibility of Hazardous Reactions

Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.

Conditions to avoid

Conditions to avoid	No special storage conditions required
----------------------------	--

Hazardous Decomposition Products

Hazardous Decomposition Products	None under normal processing
---	------------------------------

Incompatible materials

Incompatible materials	Strong oxidising agents
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11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Product Information	Product does not present an acute toxicity hazard based on known or supplied information
Eye contact	May cause slight irritation.
Skin contact	Prolonged contact may cause redness and irritation.
Inhalation	Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Components	Oral LD50	Dermal LD50	Inhalation LC50
1-Decene, dimer, hydrogenated - 68649-11-6	> 5,000 mg/kg (Rat)	> 3,000 mg/kg (Rabbit)	1.17 mg/l, 4 h (Rat) dust/mist
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	= 2,930 mg/kg (Rat)	> 2,000 mg/kg (Rat)	-

Information on toxicological effects**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

Sensitization	No sensitization responses were observed.
----------------------	---

Mutagenic effects:	Did not show mutagenic or teratogenic effects in animal experiments.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.
Components	2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0
ACGIH	-
IARC:	Group 3
NTP Report on Carcinogens List -	-
OSHA	-
Reproductive toxicity	This product does not contain any known or suspected reproductive hazards.
STOT - Single Exposure	None under normal use conditions.
STOT - Repeated Exposure	None under normal use conditions.
Aspiration hazard	Not applicable.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity	23.1% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .	
ATEmix (oral)	5052 mg/kg
ATEmix (dermal)	5052 mg/kg
ATEmix (inhalation-dust/mist)	5.4 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Harmful to aquatic life with long lasting effects

0.625% of the mixture consists of component(s) of unknown hazards to the aquatic environment

1-Decene, dimer, hydrogenated - 68649-11-6	
Algae/aquatic plants	> 1,000 mg/l, 72 h, Scenedesmus capricornutum
Fish	> 1,000 mg/l, 96 h, Oncorhynchus mykiss
Crustacea	> 1,000 mg/l, 48 h, Daphnia magna
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	
Algae/aquatic plants	6: 72 h Pseudokirchneriella subcapitata mg/L EC50 0.42: 72 h Desmodesmus subspicatus mg/L EC50
Fish	0.464 mg/l, 96 h, Fish
Crustacea	0.386 mg/l, 48 h, Daphnia magna

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

The product is insoluble and floats on water.

Components	Partition coefficient
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	4.17

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

DOT Not Regulated

IATA-DGR Not Regulated

IMO / IMDG Not Regulated

15. REGULATORY INFORMATION

International Inventories

TSCA: Listed in TSCA

DSL: All of the components in this product are listed in DSL

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

State Regulations (RTK)

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Components	NJRTK:	MARTK:	PARTK:
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	Substance no. 0814 Listed.	Listed.	Listed.

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATIONNfpa:

Health: 1

Flammability: 1

Instability 0

NFPA/HMIS * for Carc, Muta, Tera, Specific Organ *

HMIS health rating:

Health: 1

Flammability: 1

Physical hazards 0

Personal protection B

Issue Date 27-Jan-2015

Revision Date 27-Jan-2015

Revision Note

Not applicable

Disclaimer

The information and recommendations contained herein are based upon tests believed to be reliable. However, Klüber does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage maybe required. Klüber assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

End of Safety Data Sheet



SAFETY DATA SHEET

Issue Date 27-Jan-2015

Revision Date 27-Jan-2015

Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name W & H Service Oil F1 MD 500

Other means of identification

Product code: 028073

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Lubricant.

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address

Klüber Lubrication NA, LP
32 Industrial Drive
Londonderry, NH 03053
Phone: (603) 647-4104
Fax: (603) 647-4106

Emergency telephone number

Emergency Telephone CHEMTREC: 1-800-424-9300; INTERNATIONAL: (703) 527-3887

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

EMERGENCY OVERVIEW

The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance Oil

Physical state Liquid

Odor Mild

Hazards not otherwise classified (HNOC)

Other information

- Harmful to aquatic life with long lasting effects

Unknown Acute Toxicity

23.1% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Components	CAS-No	Weight %	Trade Secret
1-Decene, dimer, hydrogenated	68649-11-6	1-10	*
2,6-Di-t-butyl-4-methylphenol (BHT)	128-37-0	< 0.25	*

4. FIRST AID MEASURES

First aid measures

Eye contact:	Flush eye with water for 15 minutes. If symptoms persist, call a physician.
Skin contact:	Rinse with plenty of water. If skin irritation persists, call a physician.
Inhalation:	Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If symptoms persist, call a physician.
Ingestion:	Do not induce vomiting. Consult a physician.

Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
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Indication of any immediate medical attention and special treatment needed

Notes to physician:	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Carbon dioxide (CO₂). Dry chemical. Dry sand. Water spray mist or foam.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire

Specific hazards arising from the chemical

In the event of fire and/or explosion do not breathe fumes. Water may be used to cool closed containers.

Hazardous combustion products Carbon oxides.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Special protective equipment for firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Standard procedure for chemical fires.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions:	Contaminated surfaces will be extremely slippery. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.
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Environmental precautions

Environmental precautions:	Do not allow material to contaminate ground water system. Prevent product from entering drains.
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Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up:	Soak up with oil absorbent material. Pick up and transfer to properly labelled containers. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Do not breathe vapors or spray mist. Avoid contact with eyes and skin. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage Conditions Store in original container. Keep tightly closed in a dry and cool place. Keep in properly labelled containers. Keep away from direct sunlight

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines Contains mineral oil, vegetable oil, and/or synthetic oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg/m³, ACGIH STEL of 10 mg/m³.

Components	ACGIH TLV	OSHA (TWA mg/m ³):	IDLH:
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	2 mg/m ³ (Inhalable fraction and vapor)	(vacated) TWA: 10 mg/m ³	

Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Respiratory protection: No personal respiratory protective equipment normally required.
Hand protection: Gloves made of plastic or rubber
Eye protection: Safety glasses with side-shields
Skin and body protection: Usual safety precautions while handling the product will provide adequate protection against this potential effect
General Hygiene Considerations Avoid contact with skin, eyes and clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid
Appearance Oil
Odor Mild
Color Yellow
Odor threshold No information available

Property	Values	Remarks • Method	pH	Not applicable
Melting point/freezing point	No information available		Boiling point / boiling range	No information available
Flash point	> 200 °C / > 392 °F	ISO 2592	Evaporation rate	No information available
Flammability (solid, gas)	No information available		Flammability Limit in Air	
Upper flammability limit:	No information available		Lower flammability limit:	No information available
Vapor pressure	< 0.17 hPa, 20°C		Vapor density	No information available
Specific Gravity	0.84		Water solubility	Insoluble in water
Solubility in other solvents	No information available		Partition coefficient	No information available

Autoignition temperature	No information available	Decomposition temperature	No information available
Kinematic viscosity	22 mm ² /s @ 40 °C	Dynamic viscosity	No information available
Explosive properties	No information available		
Oxidizing properties	No information available		

Other information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY**Reactivity**

Not applicable

Chemical stability

Stability	Stable under normal conditions
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Possibility of Hazardous Reactions

Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.

Conditions to avoid

Conditions to avoid	No special storage conditions required
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Hazardous Decomposition Products

Hazardous Decomposition Products	None under normal processing
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Incompatible materials

Incompatible materials	Strong oxidising agents
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11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Product Information	Product does not present an acute toxicity hazard based on known or supplied information
Eye contact	May cause slight irritation.
Skin contact	Prolonged contact may cause redness and irritation.
Inhalation	Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Components	Oral LD50	Dermal LD50	Inhalation LC50
1-Decene, dimer, hydrogenated - 68649-11-6	> 5,000 mg/kg (Rat)	> 3,000 mg/kg (Rabbit)	1.17 mg/l, 4 h (Rat) dust/mist
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	= 2,930 mg/kg (Rat)	> 2,000 mg/kg (Rat)	-

Information on toxicological effects**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

Sensitization	No sensitization responses were observed.
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Mutagenic effects:	Did not show mutagenic or teratogenic effects in animal experiments.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.
Components	2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0
ACGIH	-
IARC:	Group 3
NTP Report on Carcinogens List -	-
OSHA	-
Reproductive toxicity	This product does not contain any known or suspected reproductive hazards.
STOT - Single Exposure	None under normal use conditions.
STOT - Repeated Exposure	None under normal use conditions.
Aspiration hazard	Not applicable.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity	23.1% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .	
ATEmix (oral)	5052 mg/kg
ATEmix (dermal)	5052 mg/kg
ATEmix (inhalation-dust/mist)	5.4 mg/l

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Harmful to aquatic life with long lasting effects

0.625% of the mixture consists of component(s) of unknown hazards to the aquatic environment

1-Decene, dimer, hydrogenated - 68649-11-6	
Algae/aquatic plants	> 1,000 mg/l, 72 h, Scenedesmus capricornutum
Fish	> 1,000 mg/l, 96 h, Oncorhynchus mykiss
Crustacea	> 1,000 mg/l, 48 h, Daphnia magna
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	
Algae/aquatic plants	6: 72 h Pseudokirchneriella subcapitata mg/L EC50 0.42: 72 h Desmodesmus subspicatus mg/L EC50
Fish	0.464 mg/l, 96 h, Fish
Crustacea	0.386 mg/l, 48 h, Daphnia magna

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

The product is insoluble and floats on water.

Components	Partition coefficient
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	4.17

13. DISPOSAL CONSIDERATIONS**Waste treatment methods**

Disposal of wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

DOT Not Regulated

IATA-DGR Not Regulated

IMO / IMDG Not Regulated

15. REGULATORY INFORMATION

International Inventories

TSCA: Listed in TSCA

DSL: All of the components in this product are listed in DSL

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

State Regulations (RTK)

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Components	NJRTK:	MARTK:	PARTK:
2,6-Di-t-butyl-4-methylphenol (BHT) - 128-37-0	Substance no. 0814 Listed.	Listed.	Listed.

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATIONNfpa:

Health: 1

Flammability: 1

Instability 0

NFPA/HMIS * for Carc, Muta, Tera, Specific Organ *

HMIS health rating:

Health: 1

Flammability: 1

Physical hazards 0

Personal protection B

Issue Date 27-Jan-2015

Revision Date 27-Jan-2015

Revision Note

Not applicable

Disclaimer

The information and recommendations contained herein are based upon tests believed to be reliable. However, Klüber does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage maybe required. Klüber assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

End of Safety Data Sheet

ICX[®]
by A-dec Inc.
SAFETY DATA SHEET

**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE
COMPANY/UNDERTAKING**

1.1 Product Identifier:

Trade Name: ICX[®]

SDS Date of Preparation: 4/24/2017

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against:

Product Use: Use to maintain dental unit waterlines and prevent accumulation of odor and foul taste bacteria. Use only according to label directions.
It is a violation of Federal law to use this product in a manner inconsistent to label directions.

Uses Advised Against: None known.

1.3 Details of the Supplier of the Safety Data Sheet:

Manufacturer: **A-dec Inc.**
2601 Crestview Dr.
Newberg, OR 97132
Tel: 1.800.547.1883 within USA/CAN
Tel: +1.503.538.7478 outside USA/CAN
Fax: 1.503.537.2702
Website: www.a-dec.com

Distributors:

A-dec Australia
Unit 8
5-9 Ricketty Street
Mascot, NSW 2020
Australia

Tel: 1.800.225.010 within AUS
Tel: +61.(0).2.8332.4000 outside AUS

A-dec China
A-dec (Hangzhou) Dental Equipment Co., Ltd.
528 Shunfeng Road
Qianjiang Economic Development Zone
Hangzhou 311106
Zhejiang, China
Tel: 400.600.5434 within China
Tel: +86.571.89026088 outside China

A-dec United Kingdom
EU Authorized Representative
Austin House, 11 Liberty Way
Nuneaton, Warwickshire CV11 6RZ
England
Tel: 0800.ADEC.UK (2332.85) within UK
Tel: +44.(0).24.7635.0901 outside UK

1.4 Emergency Telephone Number:

Contact the A-dec Distributor, listed in section 1.3, closest to your location.
For SDS information guidance, contact INFOTRAC:

1.800.535.5053 – within USA/CAN
1.352.323.3500 – outside USA/CAN

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture:

The GHS classification below is for the product in its concentrated form as sold. The diluted form in water, may not present these hazards.

Physical:	Health:	Environment:
Not Hazardous	Eye Irritation Category 2B Specific Target Organ Toxicity Repeated Exposure Category 2 (H373)	Aquatic Acute Toxicity Category 1 (H400) Aquatic Chronic Toxicity Category 2 (H411)

2.2 Label Elements:

Warning!



Contains: Silver Nitrate, Cationic Surfactant, Tetrasodium EDTA Dihydrate

Statements of Hazard

H320 Causes eye irritation.

H373 May cause damage to respiratory tract through prolonged or repeated exposure by inhalation.

H400 Very toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

Precautionary Phrases

P260 Do not breathe dust.

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

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 attention.

P314 Get medical attention if you feel unwell.

P391 Collect spillage.

P501 Dispose of contents and container in accordance with local, state, and national regulations.

2.3 Other Hazards: None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture:

Citric Acid	35-45%	Sodium Benzoate	<3%
CAS 77-92-9 / EC 201-069-1		CAS 532-32-1 / EC 208-534-8	
Eye Irrit. 2A, H319		Eye Irrit. 2A, H319	
Tetrasodium EDTA Dihydrate	<10%	Cationic Surfactant	<1%
CAS 10378-23-1 / EC Not listed		Proprietary / Proprietary	
Acute Tox. 4, H302, H332 / Eye Dam. 1, H318 /		Acute Tox. 4, H302 / Skin Corr. 1B, H314 /	
Skin Irrit. 2, H315 / STOT RE 2, H373		Aquatic Acute 1, H400	
Sodium Carbonate Peroxyhydrate	<10%	Silver Nitrate	<0.5%
CAS 15630-89-4 / EC 239-707-6		CAS 7761-88-8 / EC 231-853-9	
Oxid. Solid 3, H272 / Acute Tox. 4, H302 / Eye		Oxid. Solid 1, H271 / Met. Corr. 1, H290 / Skin	
Dam. 1, H318		Corr. 1B, H314 / Aquatic Acute 1, H400 /	
		Aquatic Chronic 1, H410	

The exact concentration is being withheld as a trade secret.

Refer to Section 16 for the full text of the GHS Classifications.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures:

Eye: If dust particles enter eyes, do not rub eyes. Flush eyes with large quantities of water for several minutes, while holding the eyelids apart. Get medical attention if irritation persists.

Skin: If contact with dust occurs, flush thoroughly with water for several minutes. Get medical attention if irritation occurs. Remove and launder clothing before re-use.

Inhalation: If dust is inhaled, remove victim to fresh air. Get medical attention if you feel unwell.

Ingestion: If small quantities of dust are swallowed, give one glass of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If large amounts of dust are swallowed or discomfort occurs, get medical attention.

4.2 Most Important symptoms and effects, both acute and delayed: Direct contact with dust may cause moderate eye irritation. Direct contact with dust cause slight skin irritation. Inhalation of dust may cause respiratory tract irritation. Prolonged or repeated inhalation of dust may damage the respiratory tract.

4.3 Indication of any immediate medical attention and special treatment needed: Immediate medical attention is not required.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media: Use any media that is suitable for the surrounding fire.

5.2 Special Hazards Arising from the Substance or Mixture: This product is not flammable or combustible. Thermal decomposition may release oxides of carbon, nitrogen and sodium.

5.3 Advice for Fire-Fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Cool fire exposed containers with water spray. Contain water used in fire incidences involving the undiluted product.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures: Isolate the area and remove unprotected people. Wear suitable protective clothing to prevent skin and eye contact. Ventilate the area.

6.2 Environmental Precautions:

Report releases as required by local, state and federal authorities.

6.3 Methods and Material for Containment and Cleaning Up: Scoop or shovel up using methods that minimize the generation of airborne dust. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Place dry material into an appropriate container for disposal. Clean the area with large quantities of water. Comply with Federal, State or local regulations on reporting spills.

6.4 Reference to Other Sections:

Refer to Section 8 for Personal Protective Equipment and Section 13 for Disposal information.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling: Avoid contact with eyes, skin and clothing. Wear protective clothing and equipment. Do not breathe dust. Use only with adequate ventilation. Wash thoroughly with water after handling. Keep containers closed when not in use. Wash clothing before re-use.

Do not reuse containers. Empty containers retain product residues which can be hazardous. Follow all SDS precautions when handling empty containers.

7.2 Conditions for Safe Storage, Including any Incompatibilities: Keep in a closed container in a cool, dry, ventilated area when not in use. Keep away from oxidizers and other incompatible materials. Avoid contact with water until ready for use. Protect against physical damage. All cleaners and pesticides should be kept out of the reach of children and stored away from food. Avoid touching tablet with unprotected skin.

7.3 Specific end use(s): This product is intended for use with potable water and in conjunction with regular dental unit water testing, following flush (shock) treatment with an antimicrobial product registered with the U.S. EPA and recommended by the manufacturer.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

Chemical Names	Exposure Limits
Citric Acid (as PNOC) Tetrasodium EDTA Dihydrate (as PNOC) Sodium Carbonate Peroxyhydrate (as PNOC) Sodium Benzoate (as PNOC) Cationic Surfactant (as PNOC)	5 mg/m ³ (respirable fraction), 15 mg/m ³ (total dust) TWA OSHA PEL 4 mg/m ³ TWA DFG MAK (Inhalable)
Silver Nitrate (as silver, soluble compounds, as Ag)	0.01 mg/m ³ TWA ACGIH TLV 0.01 mg/m ³ TWA OSHA PEL 0.01 mg/m ³ TWA UK WEL 0.01 mg/m ³ TWA EU OEL (total dust)

*Particles Not Otherwise Classified (PNOC) exposure limits only apply if dust is generated.

8.2 Exposure Controls:

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

Personal Protective Equipment:

Respiratory Protection: In operations where exposure levels are excessive, an approved respirator with dust/mist cartridges or supplied air respirator should be used. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable regulations and good Industrial Hygiene practice.

Skin Protection: Follow facility requirements for operation. Chemical resistant gloves are recommended to prevent prolonged skin contact. Contact your glove supplier for assistance in selecting an appropriate glove.

Eye/Face Protection: Chemical safety glasses or dust goggles are recommended to avoid eye contact.

Other: Impervious coveralls, apron and boots are required to prevent prolonged skin contact and contamination of personal clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties:

Appearance: Solid white tablet	Vapor Pressure: Not applicable
Odor: Nil	Vapor Density: Not applicable
Odor Threshold: Not available	Relative Density: 1.5-1.7 g/cm ³
pH: The pH of ICX-treated water will depend on the type of water used.	Solubility(ies): Soluble in water
Melting/Freezing Point: Not available	Partition Coefficient Octanol/Water: Not applicable
Initial Boiling Point/Range: Not applicable	Auto-ignition Temperature: Not applicable
Flashpoint: None	Decomposition Temperature: Not available
Evaporation Rate: Not applicable	Viscosity: Not applicable
Flammability (solid, gas): Not flammable or combustible	Explosive Properties: Not explosive
Flammable Limits: LEL: Not applicable UEL: Not applicable	Oxidizing Properties: Contains ingredients that are oxidizers.

9.2 Other Information: None available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: Not normally reactive.

10.2 Chemical Stability: Stable under normal storage and handling conditions.

10.3 Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

10.4 Conditions to Avoid: Avoid elevated temperatures.

10.5 Incompatible Materials: Strong oxidizers, strong acids, bases, nitrates, and soluble metal chelates.

10.6 Hazardous Decomposition Products: When heated to decomposition emits oxides of carbon, nitrogen and sodium.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

Potential Health Effects:

Eye: Direct contact with dusts may cause moderate irritation.

Skin: Direct skin contact with dusts may cause slight skin irritation.

Inhalation: Inhalation of dust may cause irritation of the nose, throat and respiratory tract.

Ingestion: Ingestion of large amount of dust may cause gastrointestinal irritation, nausea and vomiting.

Chronic Hazards: Prolonged or repeated inhalation exposure may damage respiratory tract.

Acute Toxicity Values:

Product: Oral rat LD50: >5000 mg/kg, Inhalation rat LC50: >2.09 mg/L/4hr (no mortality),

Skin rat LD50: >5000 mg/kg

Irritation: This product causes slight skin irritation and moderate eye irritation.

Corrosivity: This product showed no signs of corrosivity when tested.

Sensitization: Based on the results of a dermal sensitization study, this product was not considered to be a contact sensitizer.

Carcinogenicity: None of the components is listed as a carcinogen or suspected carcinogen by IARC, NTP, OSHA, or the EU CLP.

Germ Cell Mutagenicity: Not expected to cause germ cell mutagenicity.

Reproductive Toxicity: Not expected to cause reproductive harm.

Specific Target Organ Toxicity:

Single Exposure: None known.

Repeated Exposure: Prolonged inhalation to Tetrasodium EDTA Dihydrate may damage the respiratory tract.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

No data available for the mixture or for product as diluted in use. The following information is for the individual components:

Silver Nitrate: 96 hr LC50 Fathead minnow: 1.2 ug/L, 48 hr LC50 Daphnia magna: 0.22 ug/L,
(M-Factor Acute: 1000, M-Factor Chronic: 100)

Some components, when in solid form and in large quantities, may be expected to be very toxic to the aquatic environment. Releases to the environment should be avoided. Product as used and diluted is not anticipated to be unusually hazardous to the environment; however releases to non-treated water supplies should be avoided.

12.2 Persistence and Degradability: No data available.

12.3 Bioaccumulative Potential: No data available.

12.4 Mobility in Soil: No data available

12.5 Results of PBT and vPvB Assessment: No data available

12.6 Other Adverse Effects: Not applicable

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Dispose in accordance with local and national environmental regulations.

SECTION 14: TRANSPORTATION INFORMATION

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
US DOT	None	Not regulated as sold	None	None	Not applicable
Canadian TDG	None	Not Regulated	None	None	Not applicable
EU ADR/RID	None	Not Regulated	None	None	Not applicable

IMDG	None	Not regulated per special provision 335.	None	None	Marine Pollutant
IATA/ICAO	None	Not regulated per special provision A158.	None	None	Marine Pollutant

14.6 Special Precautions for User: Not applicable

14.7 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health and Environment Regulations/Legislation Specific for the Substance or Mixture:

U.S. FEDERAL REGULATIONS:

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

FIFRA Labeling:

KEEP OUT OF REACH OF CHILDREN.

WARNING

Hazards to humans and domestic animals.

Causes moderate eye irritation, wear protective eyewear. Avoid contact with eyes, skin or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

CERCLA 103 Reportable Quantity: As sold product will not exceed CERCLA reporting requirements. Some states have more stringent reporting requirements. Report all spills in accordance with local, state, and federal regulations.

SARA TITLE III:

Hazard Category for Section 311/312: Acute Health, Chronic Health

Section 313 Toxic Chemicals: This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements: None

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on TSCA inventory.

STATE REGULATIONS:

California Proposition 65: This product does not contain substances known in the State of California to cause cancer and/or reproductive harm.

INTERNATIONAL REGULATIONS:

CANADIAN REGULATIONS

Canadian Workplace Hazardous Materials Information System (WHMIS): Class D Division 2B (Toxic material causing other toxic effects)

Canadian Environmental Protection Act: This product contains one or several components listed on either the Domestic Substances List (DSL) or Non- Domestic Substances list (NDSL).

This SDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the SDS contains all of the information required by the CPR.

EUROPEAN REGULATIONS

REACH: A-dec Inc. products comply with REACH regulation as applicable. For more information, contact A-dec Inc.

SVHC: This product contains the following Substances of Very High Concern (SVHCs): None

15.2 Chemical Safety Assessment: None required.

SECTION 16: OTHER INFORMATION

NFPA Rating: Health = 1 Flammability = 0 Instability = 0
HMIS Rating: Health = 1 Flammability = 0 Physical Hazard = 0

Revision Summary:
4/16/2015: New SDS

GHS Classification for Reference (See Sections 2 and 3):

Acute Tox. 4 – Acute Toxicity Category 4	H271 May cause fire or explosion; strong oxidizer.
Aquatic Acute 1 – Aquatic Acute Toxicity Category 1	H272 May intensify fire; oxidizer.
Aquatic Chronic 1 – Aquatic Chronic Toxicity Category 1	H290 May be corrosive to metals.
Aquatic Chronic 2 – Aquatic Chronic Toxicity Category 2	H302 Harmful if swallowed.
Eye Dam. 1 – Eye Damage Category 1	H314 Causes severe skin burns and eye damage.
Eye Irrit. 2A – Eye Irritant Category 2A	H315 Causes skin irritation.
Eye Irrit. 2B – Eye Irritant Category 2B	H318 Causes serious eye damage.
Met. Corr. 1 – Corrosive to Metals Category 1	H319 Causes serious eye irritation.
Oxid. Solid 1 – Oxidizing Solid Category 1	H320 Causes eye irritation.
Oxid. Solid 3 – Oxidizing Solid Category 3	H332 Harmful if inhaled.
Skin Corr. 1B – Skin Corrosion Category 1B	H373 May cause damage to organs through prolonged or repeated exposure.
Skin Irrit. 2 – Skin Irritant Category 2	H400 Very toxic to aquatic life.
STOT RE 2 – Specific Target Organ Toxicity Repeated Exposure Category 2	H410 Very toxic to aquatic life with long lasting effects.
	H411 Toxic to aquatic life with long lasting effects.

NOTICE

The above information is believed to be correct but does not propose to be all inclusive and shall be used only as a guide. A-dec Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. This information relates only to the product designated herein and does not relate to its use in combination with any other material or process.