

Ondina  
**SAFETY DATA SHEET**

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Revision History

Part Number	Revision	Date	Owner	Description of Change
73-00826-001	A	July 17, 2020	A. Wert	Added Supplemental Document

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2015/830 – United Kingdom (UK)

## SAFETY DATA SHEET

### 1. Identification of the Substance/ Mixture and of the Company/ Undertaking

**Product Name:** ATI Ondina X 420

**Preparation Date:** September 3, 2017

**Revision Date:** July 17, 2020

**Recommended Use:** Particle filter testing

**Supplier:** Air Techniques International UK  
4 Campus Five  
Letchworth Business Park  
Letchworth Garden City, Hertfordshire SG6 2JF  
United Kingdom

**Telephone:** +44 (0) 1462 676446

**Emergency Telephone Number:** CARECHEM24: +44 1235 239 670

### 2. Hazard Identification

**GHS Classification:** Aspiration Hazard: Category 1. H304 – May be fatal if swallowed and enters airways.

**GHS Labeling:**

Symbol:



Signal Word: Danger

Precautionary Statements:

P101: If medical advice is needed, have product container or label at hand.

P102: Keep out of reach of children

P103: Read label before use.

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER OR doctor/physician

P331: Do NOT induce vomiting

P405: Store locked up

P501: Dispose of contents and container in accordance with local regulations

**Other Hazards Not Classified:** No significant hazards

**US OSHA/HCS Status:** Hazardous under OSHA Hazard Communication Standard Revised in 2012

### 3. *Composition/Information on Ingredients*

Chemical Name	Identifiers	Concentration, Wt. %
Distillates (Fischer-Tropsch), heavy, C18-50-branched, and linear	CAS#: <u>1262661-88-0</u> EC: 500-393-3	100%

### 4. *First Aid*

**Inhalation:** If inhaled, move to fresh air. If victim has stopped breathing give artificial respiration, preferably, mouth to mouth. Contact a physician immediately.

**Eyes:** Flush with large amounts of cold water for at least 15 minutes. Do not let victim rub eyes. If irritation develops, contact a physician immediately.

**Ingestion:** Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If victim is conscious and able to swallow, promptly have victim drink water to dilute. Never give anything by mouth if victim is unconscious or having convulsions. Contact a physician immediately.

**Skin:** Wash affected area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use.

**Most important symptoms and hazardous effects:**

If material enters lungs, signs and symptoms include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. The onset of respiratory symptoms may be delayed for several hours after exposure. Defatting dermatitis signs and symptoms may include a burning sensation and/or a dried/cracked appearance.

**Indication of immediate medical attention and special treatment needed:** If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

### 5. *Fire-fighting Measures*

**Suitable extinguishing media:** Carbon dioxide, Dry chemical, Foam, Water spray

**Specific hazards:** Smoke, fumes and incomplete combustion products.

**Specific protective equipment and precautions for fire fighters:** Use water spray, dry chemical, foam or carbon dioxide. Water may be ineffective but should be used to keep fire exposed containers cool. If a spill or a leak has not ignited, use water spray to disperse the vapors. Water spray may be used to flush spills away from fire.

Perform only those firefighting procedures for which you have been trained. Firefighters should wear self-contained breathing apparatus in the positive pressure mode with a full-face piece where there is a possibility of exposure to smoke, fumes or hazardous decomposition products.

**Flammability Properties:**

Flash point: 225°C (Cleveland Open Cup)

Auto-Ignition Temperature: >320°C

### 6. *Accidental Release Measures*

**Personal precautions, protective equipment and emergency procedures:**

Use personal protective equipment. Ensure adequate ventilation.

**Environmental Precautions:** Do not allow spilled material to enter sewers or streams. If spills are likely to enter any drain, waterway or groundwater, contact the appropriate governmental agency.

**Methods and materials for containment:** Slippery when spilled. Avoid accidents, clean up immediately. Add dry material to absorb (if large spill, dike to contain). Using recommended protective equipment, pick up bulk of spill and containerize for recovery or disposal. Flush area with water to remove residues.

## **7. Handling and Storage**

**Precautions for safe handling:** Read label for instructions in use of product. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source).

**Conditions for safe storage:** Store in closed containers in a cool, dry well-ventilated area. Maintain closure of bungs. Do not reuse container. Avoid container damage while storing.

Empty containers retain residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, bronze, solder, drill, grind or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death. Do not attempt to refill containers since residue is difficult to remove. Empty drums should be completely drained, properly bunged and returned to a drum re-conditioner. All containers should be disposed of in an environmentally safe manner in accordance with governmental regulations.

## **8. Exposure Controls/Personal Protection**

**Control parameters:** For mist and aerosols: 5 mg/m<sup>3</sup>ACGIH TLV; 10 mg/m<sup>3</sup> ACGIH STEL – US ACGIH Threshold Limit Values.

**Appropriate engineering controls:** Proper protection and controls is dependent upon the potential exposure conditions. No special requirements are needed under ordinary conditions where adequate ventilation is available.

### **Individual protective measures:**

*Respiratory protection:* Needed when airborne contaminant concentrations are at a level which cannot protect worker health. Then an approved respirator must be used. Selection of the respirator is dependent upon regulatory conditions. For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode.

*Eye protection:* No eye protection is needed under conditions of normal use. If there is a possibility that the product can be splashed into the eyes, then safety glasses with side shields or chemical goggles are required. Contact lenses should also not be worn if the product could be splashed into the eyes.

*Hand protection:* No gloves are required for single, short duration exposures. For prolonged or repeated exposures, wear rubber gloves.

*Body protection:* If product use involves single, short duration exposures, then no additional protective wear for covering the skin is required. For prolonged or repeated exposures to the skin, wear impervious, protective clothing including rubber safety shoes to avoid skin contact.

## **9. Physical and Chemical Properties**

**Appearance:** Liquid

**Odor:** Slight Hydrocarbon

**Odor Threshold:** N/A  
**pH:** N/A  
**Pour point:** -36 °C  
**Initial boiling point and boiling range:** > 280 °C (estimated value)  
**Flash Point (Method):** 225 °C (Cleveland Open Cup)  
**Evaporation Rate:** N/A  
**Flammability (Solid, Gas):** N/A  
**Upper/lower flammability or explosive limits:** UEL: Typical 10% (V); LEL: Typical 1% (V)  
**Vapor pressure:** <0.5 Pa at 20 °C estimated value  
**Vapor density:** >1 estimated value  
**Relative density:** 0.816 @ 15 °C  
**Solubility in water:** Insoluble  
**Partition coefficient n-octanol/water:** > 6 (based on information on similar products)  
**Autoignition Temperature:** > 320 °C  
**Decomposition Temperature:** N/A  
**Viscosity:** 18 cSt at 40 °C / 4 cSt at 100 °C

### **10. Stability and Reactivity**

**Chemical stability:** Stable at normal conditions  
**Possibility of hazardous reactions:** Not expected and hazardous polymerization will not occur  
**Conditions to avoid:** Extremes of temperature and direct sunlight.  
**Incompatible Materials:** Strong oxidizing agents.  
**Hazardous decomposition products:** Carbon dioxide and carbon monoxide

### **11. Toxicological Information**

**Acute Inhalation Toxicity:** LC50 (Rat) > 5 mg/l;  
Exposure time: 4 hours  
Low toxicity by inhalation

**Acute Oral Toxicity:** LD50 (rat) > 5,000 mg/kg; Expected to be of low toxicity.

**Acute Dermal Toxicity:** LD50 > 5,000 mg/kg Low toxicity.

**Inhalation:** Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

**Skin:** Not irritating to skin. Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis

**Eyes:** Contact expected to be slightly irritating

**Systemic (other target organ) Effects:** None known

**Teratology (birth defects):** None known

**Reproductive Effects:** None known

**Mutagenicity (effects on genetic material):** None known

**Carcinogenicity:** IARC: NO NTP: No OSHA: No

## **12. Ecological Information**

### **Aquatic/terrestrial ecological toxicity:**

**Toxicity to daphnia:** LL/EL/IL 50 > 100 mg/liter. Expected to be practically non-toxic

**Toxicity to fish:** LL/EL/IL 50 > 100 mg/liter. Expected to be practically non-toxic

**Toxicity to micro-organism:** NOEC 2 mg/l (similar material) (28 days)

**Toxicity to aquatic plants:** NEOLR 1000 mg/l WAF (similar material) (72 hours)

**Toxicity to daphnia:** NOELR: 125 mg/l WAF (similar material) (21 days)

**Toxicity to bacteria:** LL/EL/IL50 > 100 mg/liter. Expected to be practically non-toxic

**Mobility:** Not available

**Persistence and degradability:** Expected to be inherently biodegradable.

**Bioaccumulative:** Has the potential to bioaccumulate

## **13. Disposal Considerations**

**Disposal methods:** Product can be disposed of by burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited by the controlling authority. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at any licensed waste disposal site.

**Precaution for disposal:** All recovered material should be packaged, labeled, transported and disposed or reclaimed in conformance with Good Engineering Practices. Comply with all applicable governmental regulations. Avoid land filling of liquids. Reclaim where possible.

## **14. Transport Information**

**RID/ADR:** Not regulated by RID/ADR

**IMO:** Not regulated by IMO

**IATA:** Not regulated by IATA

**USA DOT:** Not designated as a hazardous material by the USA DOT

## **15. Regulatory Information**

**Europe REACH (EC) No 1907/2006:** Product contains components that are registered in compliance with REACH (EC) No 1907/2006.

**USA TSCA:** In compliance with the inventory

## **16. Other Information**

**References and Sources:** Information contained in this safety data sheet is based on Air Techniques International's owned data and public sources deemed valid or acceptable. The absence of data elements required by ANSI or 2001/58/EC indicates that no data meeting these requirements is available.

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## EU SDS Supplemental Document Use of ONDINA X 420 when Testing Filters

The purpose of this supplemental document is to assist Air Techniques International's customers with safely using ATI Ondina X-420 for filtration testing which is a specialized application for this product.

### *Introduction*

ATI Ondina X 420 is a hydrocarbon-based fluid used as a base stock by the lubricant industry.

The safety data sheet (SDS) for ATI Ondina X 420 is in compliance with the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals. Due to Ondina X 420's viscosity, the ATI Ondina X 420 SDS lists the product as an Aspiration Hazard – Category 1. The reason for this classification is that Ondina X 420 is present at a concentration greater than 10% of the Air Techniques International product and exhibits a kinematic viscosity less than 20.5 cSt (centistokes) at 40° C.

For this reason, the following health hazard pictogram must be shown on the SDS:



However, ***Ondina X 420 is not an aspiration hazard when aerosolized during in filter testing.*** Ondina X 420 is widely considered to be a safe material by the lubricant industry. There have been no safety issues including no issues related to aspiration reported by lubricant manufacturers and end users for the years that Ondina X 420 has been available.

### **Risk to Operator during Filtration Testing**

#### ***Exposure risk when pouring oil into generator***

During filtration testing, the only time that there is worker exposure to liquid ATI-Ondina X 420 is during the addition to the aerosol generator used in filtration testing. The safety precautions listed in the ATI-Ondina X 420 SDS Section 8 *Exposure Controls/Personal Protection* must be followed during this phase of the testing to minimize worker exposure.

#### ***Exposure risk when oil is aerosolized during filtration testing***

ATI Ondina X 420 is aerosolized during filter testing which means that this product is diluted with air. The exposure for an end user, after dilution by the system air flow upstream of the filter is typically between 10 milligrams/cubic meter and 20 milligrams/cubic meter of ATI Ondina X 420.

A certifier downstream of the filter under test will be exposed to a level of ATI Ondina X 420 that is typically at maximum, less than 0.1% of the upstream aerosol concentration. This means that the maximum likely exposure downstream is 0.001 milligram/cubic meter of ATI Ondina X 420.

The average permissible exposure limits over an 8-hour period for mineral oil which is a hydrocarbon that has a similar composition to ATI Ondina X 420 is 5 milligrams/cubic meter which is 5,000 times higher than the typical exposure found in filtration testing.

Based on these values, a protective mask or other form of personal protective equipment will not be necessary when using Ondina X 420 in an aerosolized form during filter testing provided the levels remain below 5 milligrams/cubic meter. If the user will be working with ATI ONDINA X 420 for an extended period of time, then please follow guidelines for “Personal Protection” in Section 8 of the SDS.

As an aerosol, ATI ONDINA X 420 is present at a concentration that is significantly below the 10% concentration specified by GHS. The aerosol is not in the liquid form, so the viscosity requirement is not relevant. ***For these two reasons, the pictogram for ATI ONDINA X 420 in the European SDS is not applicable to the use of ATI ONDINA X 420 in filter testing.***

This analysis is relevant for filter testing users working with the two most common aerosol generators manufactured by Air Techniques International. These units are the Model ATI 5B/5C/5D thermal generators.

If the permissible exposure limit for mineral oil is updated in the future, these guidelines will change accordingly. Air Techniques International pledges to ensure that the safety of its customers is paramount.

#### ***Risk to Individuals in Heating ATI ONDINA X 420 in Aerosol Generator***

Proper use of the Model ATI 5B/5C/5D generators prevents the user from coming in contact with heated Ondina X420. In its normal application, an adaptor and hose will be attached to the generator’s nozzle, enabling the aerosol produced to be injected directly into an HVAC duct.

Without the adapter and hose, ATI Ondina X 420 is heated in a sealed chamber in the aerosol generator and expelled under pressure through a nozzle. As the ATI Ondina X 420 leaves the nozzle, 7.6 centimeters away from the generator, the very center of the aerosol plume is 105° C, and rapidly cools to ambient temperature.