

Raymond Lumber • 51 Ellis Street • Raymond, WA • 98577

August 13, 2021

Mr. Aaron Manley, P.E.
Olympic Region Clean Air Agency
2940 Limited Lane Northwest Suite B
Olympia, WA 98502

Re: Weyerhaeuser NR Company – Raymond Lumber
Operating Permit No. 12AOP915
NOC – Green Lumber Treatment System

Sent by email and certified mail

Mr. Manley:

Enclosed is a Notice of Construction (NOC) application for a project planned for our Raymond Lumber operation, which operates under the referenced permit. The Raymond mill currently produces kiln-dried lumber; this project will enable Raymond to also produce and market “green” lumber for a portion of its total production. We are not requesting any change in our total production or the amounts that can be kiln-dried.

Weyerhaeuser’s other Oregon and Washington lumber mills already produce green lumber. Many west coast customers prefer working with green lumber, and it requires less energy and produces fewer emissions to manufacture. As a precaution against growth of mold on the lumber during the transport, storage, and construction stages, an antifungal treatment is sprayed onto the lumber after planing, which inhibits microbial growths on the lumber surfaces until construction is completed and the lumber air-dries. The treatment is a surface spray application only, providing temporal protection using the same class of fungicides employed by farmers for crop fungus protection, and for treatment of materials such as playground wood chips. As such, this treatment is unrelated to the processes and substances used for pressure treatment of lumber, which provides long-term protection against wood decay, and which uses entirely different treatment chemicals.

Weyerhaeuser has submitted the \$3,521 NOC application filing fee via credit card payment. The confirmation email is included as an attachment to this letter.

If you have any questions about this application, please contact Angela Cameron at 360-749-3225, or by email at angela.cameron@weyerhaeuser.com. Alternatively, contact Jack Carter at 971-344-1431 or by email at jack.carter@wy.com.

Regards,



Nick Brooks
Mill Manager

Received
AUG 16 2021

ORCAA

NOTICE OF CONSTRUCTION APPLICATION

Green Lumber Project

Weyerhaeuser Company / Raymond, WA

Prepared By:

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TRINITY CONSULTANTS

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August 2021

Project 214801.0074



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1. EXECUTIVE SUMMARY

Weyerhaeuser Company (Weyerhaeuser) owns and operates a softwood lumber mill in Raymond, Washington (the Raymond mill). The facility is located at 51 Ellis Street, Raymond, WA 98577. The Raymond mill currently operates under Olympic Region Clean Air Agency (ORCAA) Air Operating Permit (AOP) 12AOP915 in an attainment or unclassified area for all pollutants. The facility produces kiln dried lumber, using batch kilns, and several other projects from wood residuals generated in the milling process such as wood chips, sawdust, and planer shavings. The facility is a major source of hazardous air pollutants (HAPs), carbon monoxide (CO), nitrogen oxides (NO_x), and volatile organic compounds (VOCs) and therefore subject to the Title V program.

Weyerhaeuser is proposing the addition of two identical spray dryer mold inhibitor systems to allow for the production of green lumber. The project will increase hourly VOC, HAP, and toxic emissions from the facility. This report is submitted in fulfillment of the requirement to submit a Notice of Construction (NOC) application under ORCAA Rule 6.1. This report provides the relevant information required in Rule 6.1.¹

The NOC application contains the following elements:

- ▶ Section 2. Project Description
- ▶ Section 3. Emission Calculations
- ▶ Section 4. Regulatory Applicability
- ▶ Section 5. Best Available Control Technology
- ▶ Appendix A. Application Forms
- ▶ Appendix B. Site Plans
- ▶ Appendix C. Equipment and Chemical Specifications
- ▶ Appendix D. Emission Calculations

¹ Considering the minor increase in emissions, a SEPA checklist has not been included with this application based on guidance from ORCAA. Weyerhaeuser can provide this form upon request.

2. PROJECT DESCRIPTION

Weyerhaeuser is proposing the installation of two identical mold inhibitor systems to be able to produce green lumber at the Raymond mill. The mold inhibitor systems will use spray dryer application to treat green lumber to prevent the wood from molding or staining. Each spray dryer will also include a mist eliminator system to catch and condense the overspray that recycles back into the system. The sprays being used in the mold inhibitor systems are aqueous solutions that either come to the Raymond mill premixed or will be mixed with water prior to application. The chemical safety data sheets (SDSs) can be found in Appendix B.

All lumber that is treated by the mold inhibitor systems will be completed in two separate phases; phase one is the linear spray booth and phase two is the end spray booth. The linear spray booth sprays the lengthwise surface area of the boards (surface treatment); this is used to treat most of the surface area of each lumber board. The surface treatment consists of an anti-stain blend, infection control, a lumber brightener, and an anti-foam product that is added as needed. The end spray booth sprays the ends of the boards (end treatment); this phase happens after the boards have been packed together. The end treatment consists of a premixed aqueous solution of the anti-stain blend and anti-foam. Once both treatments have been applied to the boards, they are to be stored on site as green lumber until sale transport. A site map of the facility and the location of the mold inhibitor systems are included in Appendix B.

As a result of this project, throughput to the batch kilns is expected to decrease. However, Weyerhaeuser is not requesting any changes to the current permit conditions relating to the batch kilns operation at this time.

3. EMISSION CALCULATIONS

Emissions of VOCs, HAPs, and Toxic Air Pollutants (TAPs) from the green lumber mold inhibitor systems are calculated using manufacturer chemical safety data sheets (SDSs).

Emissions of VOC are calculated using the VOC content of each chemical, maximum lumber throughput, and application rate of each chemical. The application rates are estimated based on the maximum chemical usage per board foot in 2020 at the Weyerhaeuser Longview, Santiam, and Cottage Grove sites with mold inhibitor systems in place. Because there is no combustion process occurring, particulate matter (PM), PM₁₀, PM_{2.5}, sulfur oxides (SO_x), NO_x, and CO will not be emitted. A summary of the estimated VOC emissions can be found in Table 3-1 below and detailed emission calculations can be found in Appendix C.

Table 3-1. VOC Emissions

Chemical	Maximum Annual Emissions (tpy)
Novastat P50 + Emulse XT + Defoamer D (0.6+4.4+0.15)	0.19
Novastat P50 + Emulse XT (12+88)	5.91
Defoamer D	0.01
Novastat IC-20	1.97
WoodBrite CQ	0.00

Emissions of HAPs and TAPs are calculated using the percent composition by weight and density of the chemical, evaporation rate of the mold inhibitor systems, mixture ratio, and maximum operating hours. The HAPs emitted from this project are glycol ether and hydrochloric acid and the TAPs emitted are hydrochloric acid and phosphoric acid. The mixture ratio, weight percent of each HAP and TAP, and density of the chemicals are used to calculate the maximum concentration of the aqueous solution. The hourly evaporation rate of the mold inhibitor systems with continuous operation determines the maximum emissions of each HAP and TAP. It is estimated that a potential of 0.051 tons per year (tpy) of HAP will be emitted as a result of this project. A summary of the estimated TAP emissions with respect to WAC 173-460-150 requirements can be found in Table 3-2 below. Detailed emission calculations for both HAP and TAP can be found in Appendix C.

Table 3-2. TAP Emissions

Pollutant	Averaging Period	De Minimis (lb/avg. Period)	SQER (lb/avg. period)	Emissions (lb/avg. period)	Modeling Required?
Hydrochloric Acid	24-hr	0.03	0.67	5.52E-03	No
Phosphoric Acid	24-hr	0.03	0.52	2.21E-01	No

4. REGULATORY APPLICABILITY

The following section outlines the applicability of various federal and state regulatory requirements.

4.1 NOC Permitting Applicability

Per ORCAA Rule 6.1(a), an NOC permit application must be filed, and a permit issued by ORCAA prior to the establishment of any new source or the modification of any existing stationary source. The proposed project is considered a new emission source. The proposed emissions resulting from this project exceed the *de minimis* for both VOC and one of two TAPs. Therefore, an NOC is required per ORCAA Rule 6.1(a) and 6.1(b)(2)(i)(D). Additionally, the proposed project is not categorically exempt from an NOC based on the source types listed in ORCAA Rule 6.1(c). This report serves as the required NOC application for the project.

4.2 Best Available Control Technology (BACT)

Per ORCAA Rule 6.1.4(a)(2) and WAC 173-400-113(2), each new or modified stationary source must employ BACT for all pollutants not previously emitted, or any pollutants for which there is an emissions increase. WAC 173-460-040 requires that each source of TAPs with project emissions greater than the *de minimis* levels specified in WAC 173-460-150 employ BACT for toxics (tBACT). A detailed analysis of BACT and tBACT is provided in Section 5 of this report.

4.3 Prevention of Significant Deterioration (PSD)

Depending on the attainment status of the area, a project is subject to the PSD permitting program under WAC 173-400-700, or the Nonattainment New Source Review (NNSR) program under WAC 173-400-800, if the project is either a "major modification" to an existing "major source," or is a new major source itself. Because the Raymond site is in an attainment area for all criteria pollutants, NNSR does not apply. Therefore, the applicability of the PSD permitting program is evaluated for the project. The VOC emissions from the proposed project are below the PSD Significant Emission Rate (SER) for VOC as shown in Table 3-1.² Therefore, the proposed project does not require PSD review.

4.4 New Source Performance Standards (NSPS)

NSPS apply to certain categories of equipment that are newly constructed, modified, or reconstructed after a stated applicability data. Spray dryers are not regulated equipment under any current NSPS standards.

4.5 National Emission Standards for Hazardous Air Pollutants (NESHAP)

NESHAP establishes technology-based standards to control hazardous air pollutants (HAPs) in 40 CFR 63. The facility's operations are required to be evaluated to determine if they are subject to the following NESHAP regulation.

² PSD Significant emission increases codified in 51 CFR 166(b)(23)(i), which includes 40 tpy of VOC.

4.5.1 Subpart DDDD. National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products

Subpart DDDD applies to plywood and composite wood manufacturing facilities that include the manufacturing of plywood and/or composite materials using a resin under heat and pressure to form a panel; this also includes any facility where lumber kilns are located. This regulation applies to such facilities that are located at a major source of HAPs. The Raymond mill is already subject to Subpart DDDD for the batch lumber kilns and have demonstrated compliance. The spray dryers are not listed under 40 CFR 63.2232 as one of the process units that is covered under this subpart. Therefore, requirements under 40 CFR 63 Subpart DDDD do not change as a result of the mold inhibitor systems at the Raymond mill.

4.6 State and Local Regulatory Applicability

4.6.1 Washington Toxic Air Pollutants Regulations

In Washington, all new sources emitting TAPs are required to show compliance with the Washington TAP program pursuant to WAC 173-460. ORCAA incorporates the Washington TAP program by reference. WAC 173-460 established a De Minimis, Small Quantity Emission Rate (SQER) and an Acceptable Source Impact Level (ASIL) for each listed TAP. An *acceptable source impact analysis* must be conducted for each TAP with an emission increase. The toxics rule, in WAC 173-460-080(2) allows for applicants to satisfy the acceptable source impact limit if emissions are below the SQER for each TAP. As shown in Table 3-2, all TAPs are below the respective SQERs. Therefore, the acceptable source impact requirement is satisfied.

4.6.2 ORCAA Rule 7.5 – Emission of Air Contaminant – Concealment and Masking

ORCAA Rule 7.5 prohibits the concealment and masking of emissions of air contaminants. The Raymond mill is prohibited to cause or allow the installation or use of any device or use of any means which conceals or masks an emission of air contaminants which would violate any provisions of ORCAA's regulations or WAC 173-400, or cause detriment to health, safety, or welfare of any person, or cause damage to property or business.

4.6.3 ORCAA Rule 7.6 – Emission of Air Contaminant of Water Vapor: Detriment to Persons and/or Property

ORCAA Rule 7.6 prohibits the emission of air contaminants detrimental to persons and/or property. The Raymond mill is prohibited to cause or allow the emission of an air contaminant or water vapor, including an air contaminant whose emission is not otherwise prohibited by these Regulations, if the air contaminant or water vapor causes detriment to the health, safety, or welfare of any person, or causes damage to property or business.

4.6.4 ORCAA Rule 8.5 – Odor Control Measures

The Raymond mill is prohibited to cause or allow the emission or generation of any odor from any source, which unreasonably interferes with another person's use, and enjoyment of their property.

4.6.5 ORCAA Rule 8.6 – Emission of Toxic Air Pollutants

The Raymond mill and the proposed project are subject to ORCAA Rule 8.6 as discussed in Sections 4.5.1 of this report.

4.6.6 ORCAA Rule 8.7 – Reporting of Excess Emissions

An excess emission is defined in Rule 1.4 as emissions of an air pollutant in excess of an applicable emission standard. The Raymond mill is required to report any excess emissions to ORCAA as soon as possible and within the timeliness and report completeness requirements outlined in Rule 8.7(a) and (b).

4.6.7 ORCAA Rule 8.8 – Control Equipment – Maintenance and Repair

The Raymond mill is required to keep any process and/or air pollution control equipment in good operating condition and repair.

5. BEST AVAILABLE CONTROL TECHNOLOGY

Per ORCAA Rule 6.1.4(a)(2) and WAC 173-400-113(2), a BACT analysis is required for all pollutants not previously emitted or whose emissions would increase as a result of the new source or modification. WAC 173-460-040 requires that each source of TAPs with project emissions greater than the de minimis levels specified in WAC 173-460-150 employ tBACT. BACT for VOC and tBACT for TAP emissions are included below.

5.1 BACT for VOC Emissions

The mold inhibitor systems emit VOC from the treatment chemicals that are used, conservatively estimated using the VOC content and application rate of the chemicals. The mold inhibitor systems are controlled by enclosed mist eliminator systems to catch and condense the overspray that recycles back into the system. Weyerhaeuser proposes that the use of the mist eliminator systems and good operating practices be considered BACT for this project.

5.2 tBACT for Phosphoric Acid Emissions

The mold inhibitor systems emit phosphoric acid from the treatment chemicals that are used, conservatively estimated using the percent composition by weight and application rate of the chemicals. The mold inhibitor systems are controlled by enclosed mist eliminator systems to catch and condense the overspray that recycles back into the system. Weyerhaeuser proposes that the use of the mist eliminator systems and good operating practices be considered tBACT for this project.

APPENDIX A. APPLICATION FORMS

OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 – Fax 360-491-6308

FORM 1- NOTICE OF CONSTRUCTION

TO CONSTRUCT - INSTALL - ESTABLISH OR MODIFY AN AIR CONTAMINANT SOURCE

Form 1 Instructions:

1. Please complete all the fields below. **This NOC application is considered incomplete until signed.**
2. If the application contains any confidential business information, please complete a Request of Confidentiality of Records (www.orcaa.org/forms).
3. Duty to Correction Application: An applicant has the duty to supplement or correct an application. Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application must, upon becoming aware of such failure or incorrect submittal, promptly submit supplementary factors or corrected information.

Business Name: Weyerhaeuser Raymond Lumbermill	For ORCAA use only File No: <u>475</u> County No: <u>49</u> Source No: <u>4</u> Application No: <u>21NOC1521</u>
Mailing Address: 51 Ellis Street, Raymond, WA 98577	Date Received: <div style="text-align: center; color: red; font-weight: bold; font-size: 1.2em;"> Received AUG 16 2021 ORCAA </div>
Physical Address of Project or New Source: 51 Ellis Street, Raymond, WA 98577	
Billing Address: 51 Ellis Street, Raymond, WA 98577	
Project or Equipment to be installed/established: Green lumber mold inhibitor systems (2) with mist eliminators	
Anticipated startup date: <u>12</u> / <u>31</u> / <u>2021</u> Is facility currently registered with ORCAA? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
This project must meet the requirements of the State Environmental Policy Act (SEPA) before ORCAA can issue final approval. Indicate the SEPA compliance option: <input type="checkbox"/> SEPA was satisfied by _____ (government agency) on ___/___/___ (date) - Include a copy of the SEPA determination <input type="checkbox"/> SEPA threshold determination by _____ (government agency) is pending - Include a copy of the environmental checklist <input type="checkbox"/> ORCAA is the only government agency requiring a permit - Include ORCAA Environmental Checklist <input checked="" type="checkbox"/> This project is exempt from SEPA per <u>Agency Discretion</u> (WAC citation).	
Name of Owner of Business: Weyerhaeuser Company	Agency Use Only
Title:	
Email:	Phone:
Authorized Representative for Application (if different than owner): Nicholas Brooks	
Title: Site Manager	
Email: <u>nicholas.brooks@weyerhaeuser.com</u>	Phone: <u>(360) 942-6350</u>
I hereby certify that the information contained in this application is, to the best of my knowledge, complete and correct.	
Signature of Owner or Authorized Representative: (sign in Blue Ink)	
	Date: <u>8/13/2021</u>
IMPORTANT: Do not send via email or other electronic means. ORCAA must receive Original, hardcopy, signed application and payment prior to processing application.	

OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502 - 360-539-7610 – Fax 360-491-6308

FORM 1D- Contact Information

Business Name Weyerhaeuser NR Company	FOR ORCAA USE
Physical Site Address (Street address, city, state, zip) 51 Ellis St Raymond, WA 98577	FILE #
	CTY #
	SRC #
Previous Business Name (if applicable)	Date Received Received AUG 16 2021 ORCAA

Contact Information

Inspection Contact	
Name Nicholas Brooks	Title Site Manager
Phone (360) 942-6350	Email nicholas.brooks@weyerhaeuser.com
Billing Contact	
Name Angela Cameron	Title Wood Products Environmental Support
Phone (360) 749-3225	Email angela.cameron@weyerhaeuser.com
Emission Inventory Contact	
Name Angela Cameron	Title Wood Products Environmental Support
Phone (360) 749-3225	Email angela.cameron@weyerhaeuser.com
Complaint Contact	
Name Angela Cameron	Title Wood Products Environmental Support
Phone (360) 749-3225	Email angela.cameron@weyerhaeuser.com
Permit Contact	
Name Angela Cameron	Title Wood Products Environmental Support
Phone (360) 749-3225	Email angela.cameron@weyerhaeuser.com

The **inspection contact** is the on-site person responsible for the everyday operation of the site and is available for inspections.

The **billing contact** is the person invoices are sent.

The **emission inventory contact** is the person requests for emissions information and material use information are sent.

The **complaint contact** is the person who receives and responds to complaints received on-site and who is contacted regarding complaints ORCAA receives.

The **permit contact** is the person responsible for filling out permit applications and receiving approval from ORCAA.



OLYMPIC REGION CLEAN AIR AGENCY

2940 Limited Lane NW - Olympia, Washington 98502

Telephone: (360)-539-7610 – Fax: (360)-491-6308

www.orcaa.org

FORM 8

Fill out all the applicable equipment information requested below and submit the appropriate fees.

SPRAY COATING (Autobody) SURFACE COATING (Aviation, Wood, Boat, Other)

Shop Information

Business Name: Weyerhaeuser NR Company	Contact Person: Angela Cameron
	Phone Number: (360) 749-3225
	Email: angela.cameron@weyerhaeuser.com
Operating Schedule: 24 hrs/day, 7 days/wk, 52 wks/yr	Indicate days when operating: <input checked="" type="checkbox"/> M <input checked="" type="checkbox"/> T <input checked="" type="checkbox"/> W <input checked="" type="checkbox"/> Thu <input checked="" type="checkbox"/> F <input checked="" type="checkbox"/> Sat <input checked="" type="checkbox"/> Sun

Process Information

Flow:	<input type="checkbox"/> Cross front flow <input type="checkbox"/> Full downdraft <input type="checkbox"/> Side downdraft <input type="checkbox"/> Combination <input type="checkbox"/> Cross reverse flow <input type="checkbox"/> Semi-downdraft <input type="checkbox"/> Updraft <input checked="" type="checkbox"/> Other (explain in attachment)	
Exhaust:	<input checked="" type="checkbox"/> Side Wall <input type="checkbox"/> Pit/Trench Design <input type="checkbox"/> Ceiling <input type="checkbox"/> Rear Wall <input type="checkbox"/> Front/Doors	
Intake Type:	<input checked="" type="checkbox"/> Natural <input type="checkbox"/> Forced (air make-up unit)	
Enclosure Type:	<input checked="" type="checkbox"/> Fully enclosed <input type="checkbox"/> Compact/modular <input type="checkbox"/> Open table/bench <input type="checkbox"/> Closed top open front (CTOF) <input type="checkbox"/> Curtain/tent/drape <input type="checkbox"/> Other (explain in attachment) <input type="checkbox"/> Tunnel	
Width (feet):	Length (feet):	Height (feet):
Manufacturer:	Novatech Spray booth, Allanco Mist eliminator, 2 Identical Units	
Model Number:	Fan Model- ALC-12-22 c/w 5Hp. Scrubber Model- ALC-G275-0300	
Serial Number:		
Pressure Gauge:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Filter Plenum: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Intended Applicator Usage (see next section):	<input checked="" type="checkbox"/> Applicator #1 <input type="checkbox"/> Applicator #3 <input type="checkbox"/> Applicator #2 <input type="checkbox"/> Applicator #4	<input type="checkbox"/> Applicator #5
Air Pollution Control Methods:	<input checked="" type="checkbox"/> Water Wash <input type="checkbox"/> Low VOC coatings <input checked="" type="checkbox"/> Scrubber <input type="checkbox"/> Cyclone (Form 13) <input type="checkbox"/> Oxidizer (Form 35) <input type="checkbox"/> Baghouse (Form 12)	<input type="checkbox"/> Cartridge unit (Form 12) <input type="checkbox"/> Enclosed spray gun cleaner
Heater/Curing Information (if applicable)		
Heater Placement:	<input type="checkbox"/> Part of spray booth unit <input type="checkbox"/> Separate curing enclosure (Form 11)	
Curing/Heating Type :	<input type="checkbox"/> Hot air dryer <input type="checkbox"/> Infrared dryer <input type="checkbox"/> Ultraviolet <input type="checkbox"/> Boiler	<input checked="" type="checkbox"/> Other (explain in attachment)
Fuel/Heat Type :	<input type="checkbox"/> Natural gas <input type="checkbox"/> Electric <input type="checkbox"/> Propane (LP) Gas <input type="checkbox"/> Diesel	<input checked="" type="checkbox"/> Other (explain in attachment)
Maximum Heating Rate (MMBtu/hr):		
Maximum Air Flow Rate (acfm):		

RETURN TO ORCAA

Coating Operation Information

Type:	<input type="checkbox"/> Existing Stationary Source	<input type="checkbox"/> Temporary Source	<input checked="" type="checkbox"/> New Stationary Source
NAICS Code(s):			

Coating Equipment Information

	Applicator #1	Applicator #2	Applicator #3	Applicator #4	Applicator #5
Coating Type**:	<input type="checkbox"/> Brush/Roller <input type="checkbox"/> Web <input checked="" type="checkbox"/> Wet spray <input type="checkbox"/> Deposition <input type="checkbox"/> Powder <input type="checkbox"/> Plating	<input type="checkbox"/> Brush/Roller <input type="checkbox"/> Web <input type="checkbox"/> Wet spray <input type="checkbox"/> Deposition <input type="checkbox"/> Powder <input type="checkbox"/> Plating	<input type="checkbox"/> Brush/Roller <input type="checkbox"/> Web <input type="checkbox"/> Wet spray <input type="checkbox"/> Deposition <input type="checkbox"/> Powder <input type="checkbox"/> Plating	<input type="checkbox"/> Brush/Roller <input type="checkbox"/> Web <input type="checkbox"/> Wet spray <input type="checkbox"/> Deposition <input type="checkbox"/> Powder <input type="checkbox"/> Plating	<input type="checkbox"/> Brush/Roller <input type="checkbox"/> Web <input type="checkbox"/> Wet spray <input type="checkbox"/> Deposition <input type="checkbox"/> Powder <input type="checkbox"/> Plating
Manufacturer:	Novatech				
Model:	Spray Bar				
Quantity:					
Technology Type:	<input type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> Air-assisted airless <input type="checkbox"/> Airless <input checked="" type="checkbox"/> Air spray <input type="checkbox"/> Rotary cup <input type="checkbox"/> Airbrush <input type="checkbox"/> Other (explain in attachment)	<input type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> Air-assisted airless <input type="checkbox"/> Airless <input type="checkbox"/> Air spray <input type="checkbox"/> Rotary cup <input type="checkbox"/> Airbrush <input type="checkbox"/> Other (explain in attachment)	<input type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> Air-assisted airless <input type="checkbox"/> Airless <input type="checkbox"/> Air spray <input type="checkbox"/> Rotary cup <input type="checkbox"/> Airbrush <input type="checkbox"/> Other (explain in attachment)	<input type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> Air-assisted airless <input type="checkbox"/> Airless <input type="checkbox"/> Air spray <input type="checkbox"/> Rotary cup <input type="checkbox"/> Airbrush <input type="checkbox"/> Other (explain in attachment)	<input type="checkbox"/> HVLP <input type="checkbox"/> Electrostatic <input type="checkbox"/> Air-assisted airless <input type="checkbox"/> Airless <input type="checkbox"/> Air spray <input type="checkbox"/> Rotary cup <input type="checkbox"/> Airbrush <input type="checkbox"/> Other (explain in attachment)
Automation/Control:	<input type="checkbox"/> Manual <input checked="" type="checkbox"/> Automatic	<input type="checkbox"/> Manual <input type="checkbox"/> Automatic	<input type="checkbox"/> Manual <input type="checkbox"/> Automatic	<input type="checkbox"/> Manual <input type="checkbox"/> Automatic	<input type="checkbox"/> Manual <input type="checkbox"/> Automatic
Air Supply Pressure (psi):	40-80				
Fluid Output Pressure (psi):	40-80				
Mounting:	<input type="checkbox"/> Handheld Gun <input checked="" type="checkbox"/> Machine/Reciprocator	<input type="checkbox"/> Handheld Gun <input type="checkbox"/> Machine/Reciprocator	<input type="checkbox"/> Handheld Gun <input type="checkbox"/> Machine/Reciprocator	<input type="checkbox"/> Handheld Gun <input type="checkbox"/> Machine/Reciprocator	<input type="checkbox"/> Handheld Gun <input type="checkbox"/> Machine/Reciprocator

**Only provide further information for applicators that are not roller/brush

Dry Filter Information

	Pre-Filter	Exhaust Filter
Manufacturer:		
Model:		
Media Type:		
Overall Arrest Efficiency (%):		
Filtered Area (squared feet):		

Heavy Metal Information

Application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd):	<input type="checkbox"/> Yes** <input type="checkbox"/> No
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**Please provide SDS/ MSDS information and estimated annual usage for each product

Other Process Information

Abrasive Blasting:	<input type="checkbox"/> Yes (Form 17) <input type="checkbox"/> No
Welding:	<input type="checkbox"/> Yes (Form 19) <input type="checkbox"/> No
Metal Cutting:	<input type="checkbox"/> Yes (Form 31) <input type="checkbox"/> No
Fluidized Bed Coating:	<input type="checkbox"/> Yes <input type="checkbox"/> No

Cleaning/Etching/Degreasing Information

Methylene Chloride Stripping:	<input type="checkbox"/> Yes** <input type="checkbox"/> No
Phosphate or Chromate Conversion Coating:	<input type="checkbox"/> Yes** <input type="checkbox"/> No
Chemical/Acid Rinsing or Bathing:	<input type="checkbox"/> Yes** <input type="checkbox"/> No

**Please provide SDS/ MSDS information and estimated annual usage for each product

Exhaust/Stack/Building Information End Spray Booth

Motor Power (hp):	N/A	
Exhaust Air Flow Rate at 0.65" w.g. (acfm):	N/A	
Fan Diameter (feet):	N/A	
Stack Type:	<input type="checkbox"/> Vertical (Ceiling Outlet)	<input type="checkbox"/> Horizontal (Wall Outlet)
Stack Height (feet from ground):	Min 6 feet	
Stack Inside Diameter (inches):	8" PVC piping	
Stack weatherproof damper or exhaust apparatus:	<input checked="" type="checkbox"/> None <input type="checkbox"/> Hexagonal <input type="checkbox"/> Stack within stack	<input type="checkbox"/> Butterfly <input type="checkbox"/> Inverted cone <input type="checkbox"/> Other (explain in attachment)
Bldg. Peak Height (feet):	60 ft	
Bldg. Width (feet):	90 ft	
Bldg. Length (feet)	450 ft	

Air Quality Modeling Site Information End Spray Booth

Distance from the centroid of the stack to the shop's property line (feet):	400
Distance from the centroid of the stack to the nearest point on the property line of a permanent residence (feet):	TBD

Filing Fee:

See <https://www.orcaa.org/services/fee-schedules/> for an up-to-date list of fees

Heavy Metal Information

Application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd):	<input type="checkbox"/> Yes** <input checked="" type="checkbox"/> No
---	---

**Please provide SDS/ MSDS information and estimated annual usage for each product

Other Process Information

Abrasive Blasting:	<input type="checkbox"/> Yes (Form 17) <input checked="" type="checkbox"/> No
Welding:	<input type="checkbox"/> Yes (Form 19) <input checked="" type="checkbox"/> No
Metal Cutting:	<input type="checkbox"/> Yes (Form 31) <input checked="" type="checkbox"/> No
Fluidized Bed Coating:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Cleaning/Etching/Degreasing Information

Methylene Chloride Stripping:	<input type="checkbox"/> Yes** <input checked="" type="checkbox"/> No
Phosphate or Chromate Conversion Coating:	<input type="checkbox"/> Yes** <input checked="" type="checkbox"/> No
Chemical/Acid Rinsing or Bathing:	<input type="checkbox"/> Yes** <input checked="" type="checkbox"/> No

**Please provide SDS/ MSDS information and estimated annual usage for each product

Linear Spray Booth

Exhaust/Stack/Building Information

Motor Power (hp):	N/A	
Exhaust Air Flow Rate at 0.65" w.g. (acfm):	N/A	
Fan Diameter (feet):	N/A	
Stack Type:	<input checked="" type="checkbox"/> Vertical (Ceiling Outlet)	<input type="checkbox"/> Horizontal (Wall Outlet)
Stack Height (feet from ground):	Min 6 feet	
Stack Inside Diameter (inches):	8" PVC piping	
Stack weatherproof damper or exhaust apparatus:	<input checked="" type="checkbox"/> None <input type="checkbox"/> Hexagonal <input type="checkbox"/> Stack within stack	<input type="checkbox"/> Butterfly <input type="checkbox"/> Inverted cone <input type="checkbox"/> Other (explain in attachment)
Bldg. Peak Height (feet):	60 ft	
Bldg. Width (feet):	90 ft	
Bldg. Length (feet)	450 ft	

Linear Spray Booth

Air Quality Modeling Site Information

Distance from the centroid of the stack to the shop's property line (feet):	250
Distance from the centroid of the stack to the nearest point on the property line of a permanent residence (feet):	TBD

Filing Fee:

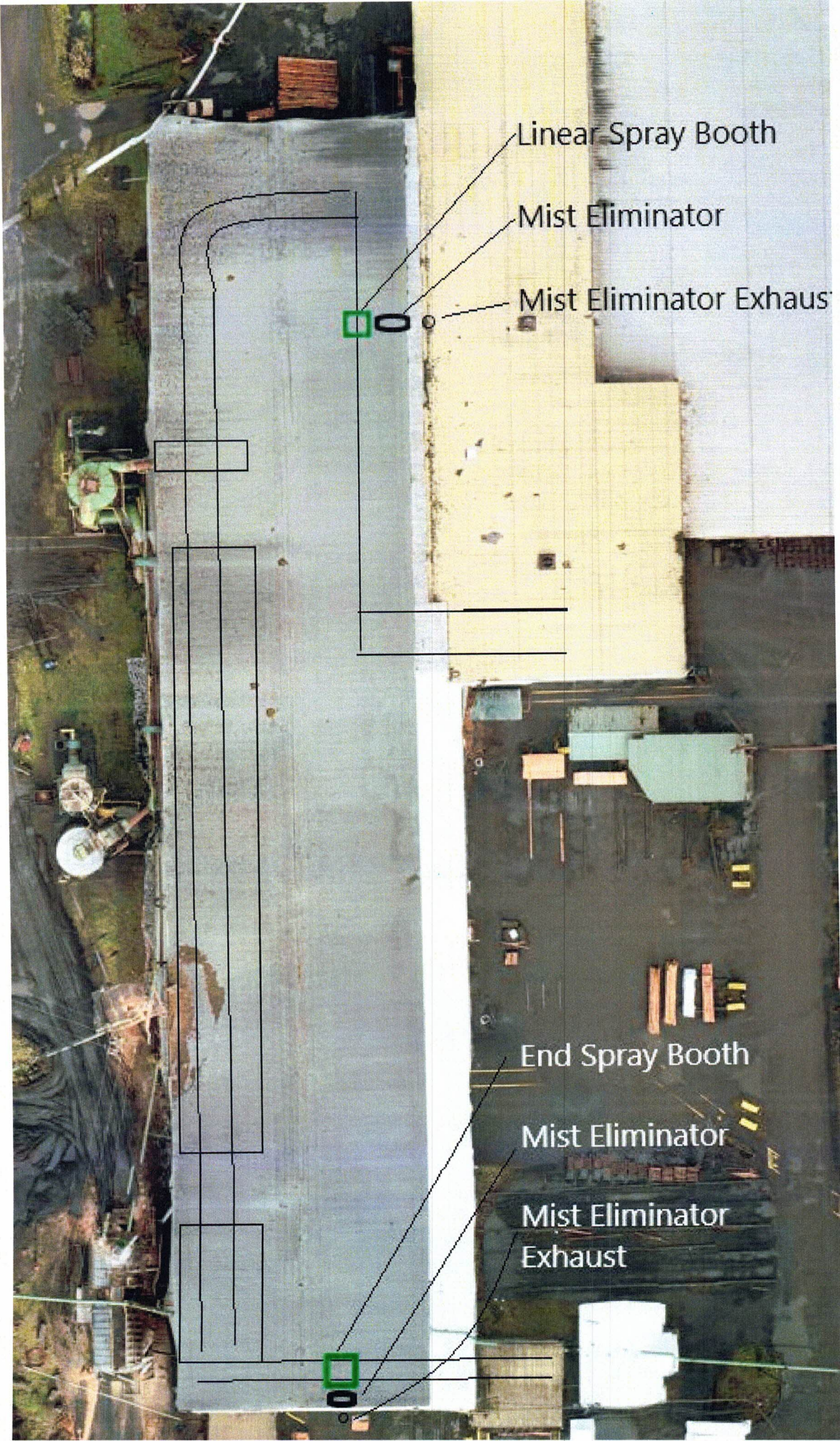
See <https://www.orcaa.org/services/fee-schedules/> for an up-to-date list of fees

RETURN TO ORCAA

APPENDIX B. SITE PLANS



Weyerhaeuser



Linear Spray Booth

Mist Eliminator

Mist Eliminator Exhaust

End Spray Booth

Mist Eliminator

Mist Eliminator Exhaust

APPENDIX C. EQUIPMENT AND CHEMICAL SPECIFICATIONS

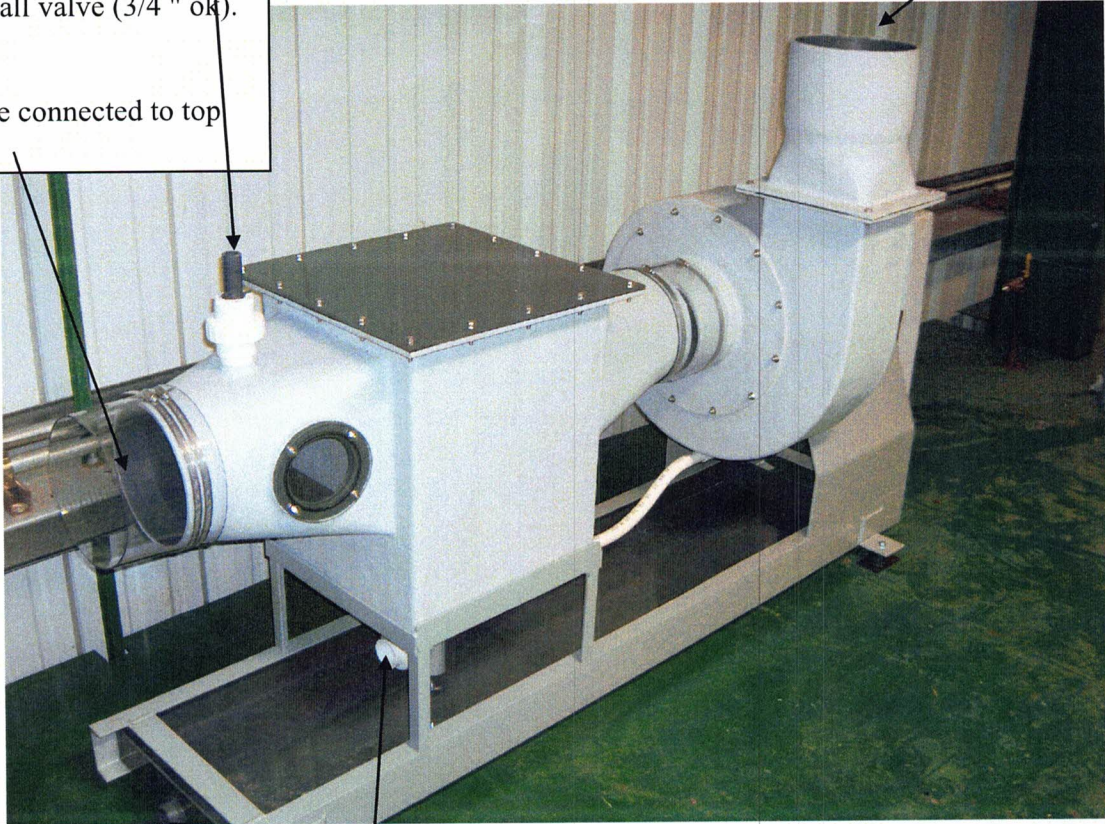
How it works

During operation the blade fan assembly spins at a high speed, providing air movement over the baffles. Mist laden air enters the Mist Collector through a flexible hose or air duct from the spray booth. As air passes through the baffles, coalescence occurs and mist particles are trapped and retained until they have grown to droplet size. The droplets start draining from the system for reuse returning through the vibratory screen while clean air is exhausted to the outside environment.

Water to be plumbed to this point with ball valve (3/4" ok).

8" inlet to be connected to top of booth.

6" outlet - replacing with stainless steel built piece.

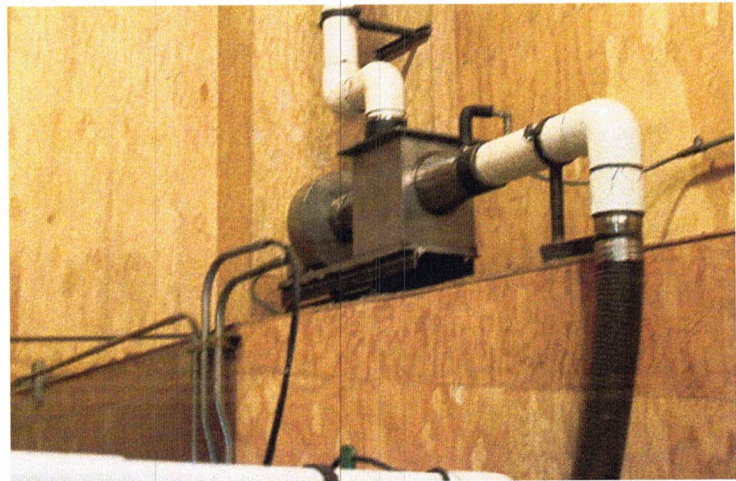
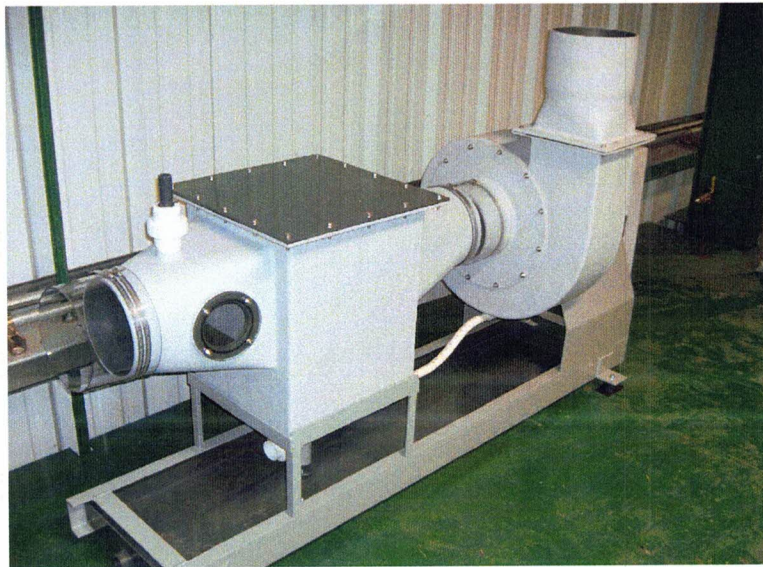


1 1/2" PVC piping (tee together) to return PVC 3" piping which then returns to Vibro Screen.

Mist eliminator cleaning procedure

Cleaning of the mist eliminator is not a hard task to-do. It should only take 30-45 minutes to do all the necessary work required.

If the mist eliminator is showing signs of a irregular suction or vacuum please review and/or clean the system.



Cleaning schedule:

Every week: Do about 30 seconds of wash down while the system is on. The baffles need to be washed down with the water rinse down nozzles that are installed before the scrubber box. This flushes the p-trap/baffles so that it can run at optimum levels without getting into full cleaning procedures. **Remember** you are adding water to the spray system it will make your dilution change down at you day tank if too much water is applied.

Every month: the system needs to be checked to see if the p-trap is clogged. Liquid/solids are built up above the return line to the spray system, means that it is time to follow the cleaning procedures.

Cleaning the system: *First follow all necessary safety requirements.*

A. Cleaning the P-trap

1. The P-trap has two union pvc connections on it.
 - a. Now **disconnect** the unions (Liquid will spill out) be smart and take your time. The pan will collect all liquid. There can be a lot of back pressure. (Back pressure is due to the baffles filling with liquid because of no liquid return to spray system)
2. Now **unscrew** the P-trap from the bottom of the baffles.
 - a. Clean the P-trap the best you can. (You want to make sure you can see inside the P-trap.)
 - b. The fitting coming directly down from the baffles is the drain for the liquid/solids. **Check** that the pipe down is not clogged. Use something to feed back into the pipe to check. **If you are unable to verify that the pipe will return liquid/solids, you will need to take out the baffles and clean the scrubber box.** This is done by unscrewing all the bolts, sliding out/cleaning the 2 baffles and cleaning the scrubber box. Make sure to put the baffles back in correctly. (The catch channels are facing the inlet)

B. Make sure that the drain pipe from the fan is not clogged. Sometimes after not cleaning for months sludge gets built up in this line all the way from the P-trap to the fan drain outlet. **Only needs to be done if clogged!**

1. Snake the pipe. (If this line is fully clogged it will need to be cleaned by taking the fan outlet fitting off)
 - a. Sludge can build up at the elbow.
 - b. Make sure to wipe down the fan the best you can.

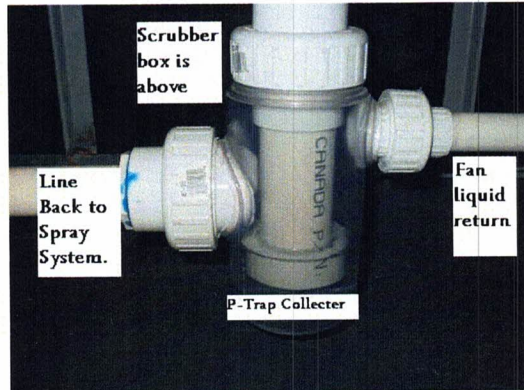
C. **Make sure that all pipe line are draining back into the spray system.**

1. Snake the returning lines, **if it is necessary.**

D. Now that it is fully clean please put back together by going backwards through the cleaning procedure. Do not over tighten the fittings, they will crack.

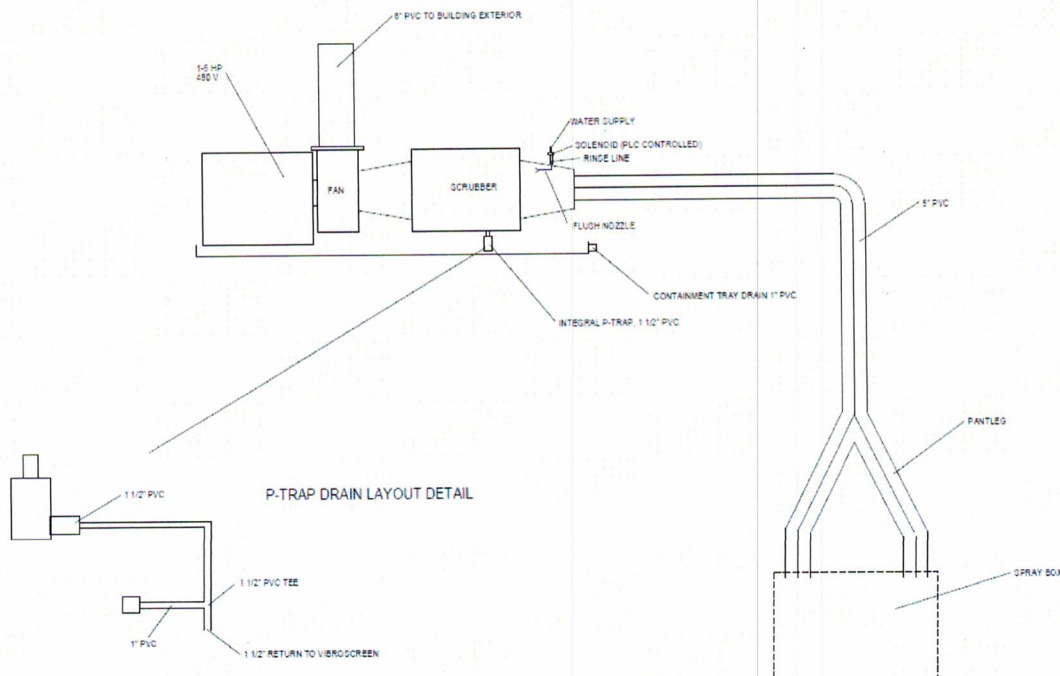
The P-trap clogging is one of the most common problems.

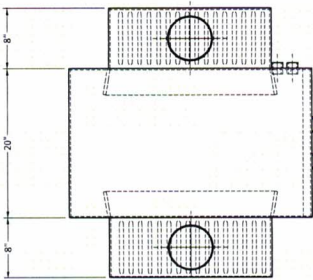
There is a fitting underneath the baffles that is called a **P-TRAP**. The reason for the p-trap is that all molecules that cannot get through the baffles will be caught and brought down into the p-trap. The p-trap is essential on separating the solids from the liquid. If the **union fitting that returns back to the spray system is over the return pipe** then the mist eliminator is not recycling back to the system. It will back up all liquid/solids into the baffles.



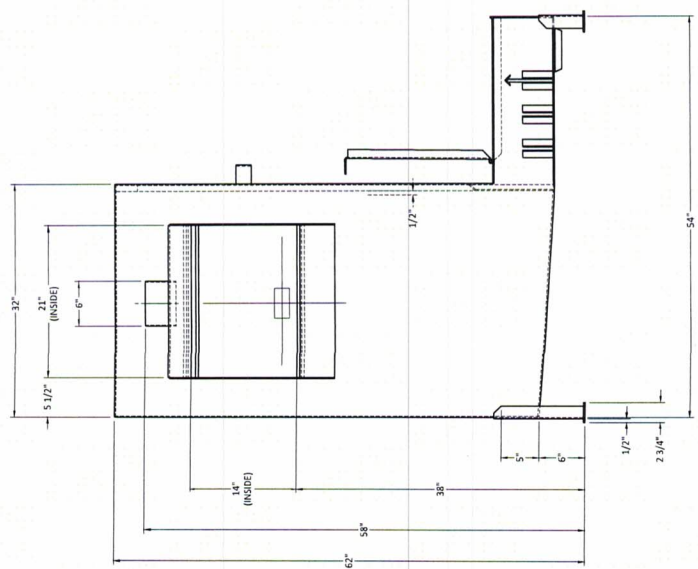
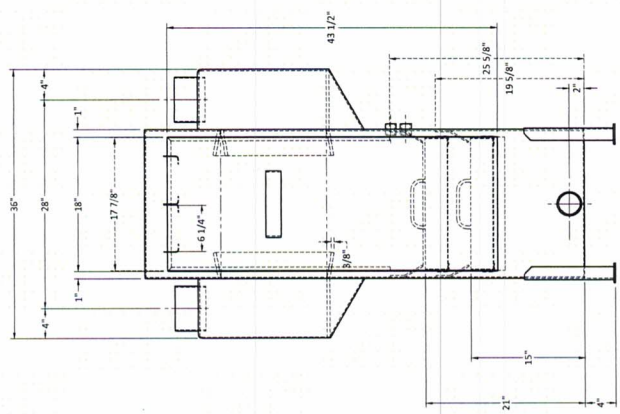
For Example: When the system is running the mist eliminator is giving a negative vacuum to the booth, so all mist is being caught/recycled back into the spray system. When mist begins to start showing irregular mist on the out feed side of the booth. The mist eliminator system needs to be cleaned.

The system is there to catch almost all of the V.O.C.s that get put into the air by the spray tips. The mist eliminator outlet pipe from the fan needs to have a **5-10 foot section** that is straight up. This makes any chance of heavy molecules of matter will not be exhausted.





BAFFLES NOT SHOWN FOR CLARITY



* ESTIMATED FINISH WT. - N/A
 MATERIAL - 304 STAINLESS STEEL
 QUANTITY - 1
 SCALE - N/A

CUSTOMER APPROVAL
 FOR CONSTRUCTION AS DRAWN AS NOTED
 APPROVED BY - _____
 APPROVAL DATE - _____
 SIGN AND RETURN BEFORE CONSTRUCTION CAN START

REVISIONS NO. DATE BY 1 11/17/2022 2 11/17/2022	FLAG LEGEND SHEET DETAIL (LEFT FROM) [X] DETAIL NUMBER [X] SECTION LETTER [X] SHEET DETAIL BREAKS ON [X]	DRAWING WEIGHTS TOTAL COMPONENT WEIGHT - 0 STRUCTURAL STEEL WEIGHT - 0 TOTAL STEEL WEIGHT - 0	OLSON MFB, INC. STEEL FABRICATION Crushing Equipment Body Dumpers - Pulp Trailers - Leaf Dumpers - Dump Boxes	DRAWING TITLE: CUSTOMER: GARTECH LINEAR SPRAY BOOTH SST 304 ASSEMBLY AND DETAILS	JOB #: _____
DRAWN: W. MCGILLISTER CHECKED: J. BROWN DESIGN: J. BROWN SCALE: AS SHOWN GENERAL DRAWING TOLERANCES FRACTIONAL - \pm .015" DECIMAL - \pm .005" HOLE DIMS - \pm .005"	DATE: 11/17/2022 CHECKED: J. BROWN APPROVED: J. BROWN	CUSTOMER: GARTECH LINEAR SPRAY BOOTH SST 304 ASSEMBLY AND DETAILS	DRAWING REFERENCE NUMBER: _____	OF 0	REVISION: 0

SAFETY DATA SHEET

Issue Date July 31-2020

Revision Date July 1-2021

Version 1

1. IDENTIFICATION

Product identifier

Product Name

**Novastat® P50 + Emulse XT + Defoamer D
(0.6+4.4+0.15)**

Other means of identification

Product Code

Registration Number(s)

Custom Blend

Recommended use of the chemical and restrictions on use

Recommended Use

Anti-sapstain Product.

Details of the supplier of the safety data sheet

Supplier Address

Novatech Wood Protection Inc
340 Fiddlers CT
St Augustine, FL, USA 32080

Emergency telephone number

Company Phone Number

904-547-2004 or 904-728-2312

24 Hour Emergency Phone Number

904-728-23121

Emergency Telephone

CHEMTREC (800) 424-9300 (in the USA)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Reproductive toxicity	Category 2

Label elements

Emergency Overview

Warning

Hazard statements

Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
Suspected of damaging fertility or the unborn child



Appearance Liquid **Physical state** Liquid **Odor** Slight

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
Specific treatment (see First Aid on this label)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Chemical Name	CAS No.	Weight-%	Trade Secret
Amines, C12-16-alkyldimethyl	68439-70-3	1 - 5	*
2-ethyl hexanoic acid	149-57-5	1 - 5	*
Propiconazole	60207-90-1	0.3	
Dipropylene glycol methyl ether	34590-94-8	0.1 - 1	*

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

Description of first aid measures

General advice In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Do not rub affected area.

Skin contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

Inhalation Remove to fresh air. Call a physician immediately. If not breathing, give artificial respiration.

Ingestion If swallowed, call a poison control center or physician immediately. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Most important symptoms and effects, both acute and delayed

Symptoms See Section 11: TOXICOLOGICAL INFORMATION.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Carbon dioxide (CO₂). Water spray or fog.

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

Specific hazards arising from the chemical

No information available.

Hazardous combustion products Carbon monoxide. Carbon dioxide (CO₂). Toxic gas. Nitrogen oxides (NO_x).

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions See Section 12: ECOLOGICAL INFORMATION.

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 Dam up. Prevent product from entering drains. After cleaning, flush away traces with water. Take up mechanically, placing in appropriate containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials Strong oxidizing agents. Strong reducing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2-ethyl hexanoic acid 149-57-5	TWA: 5 mg/m ³ inhalable fraction and vapor	-	-
Dipropylene glycol methyl ether 34590-94-8	STEL: 150 ppm TWA: 100 ppm S*	TWA: 100 ppm TWA: 600 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 600 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 900 mg/m ³ (vacated) S* S*	IDLH: 600 ppm TWA: 100 ppm TWA: 600 mg/m ³ STEL: 150 ppm STEL: 900 mg/m ³

Appropriate engineering controls

Engineering Controls General ventilation is normally adequate provided spray mists are contained through negative pressure spraybox design with integrated mist eliminator.

Individual protection measures, such as personal protective equipment

- Eye/face protection** Goggles.
- Skin and body protection** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
- Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off all contaminated clothing and wash it before reuse. Avoid contact with skin, eyes or clothing. Wash face, hands and any exposed skin thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Slight
Appearance	Liquid	Odor threshold	No information available
Color	light yellow		
Property	Values	Remarks • Method	
pH	6-7		
Melting point / freezing point	< 0 °C / <32 °F		
Boiling point / boiling range	> 100 °C / >212 °F		
Flash point	Does not flash		
Evaporation rate	< 0.5 x n-BuOAc		
Flammability (solid, gas)	No information available		
Flammability Limit in Air			
Upper flammability limit:	6.2% (V) for 2-Ethylhexanoic acid		
Lower flammability limit:	1.0% (V) for 2-Ethylhexanoic acid		

Vapor pressure	No information available
Vapor density	Heavier than air
Relative density	0.994
Water solubility	Soluble 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	No information available
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 (%)	0.7% (0.058 lbs/US gal)
Density	8.295 lbs/US gal
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

Strong oxidizing agents. Strong reducing agents.

Hazardous Decomposition Products

Thermal decomposition can lead to release of toxic/corrosive gases and vapors. Amines. Nitrogen oxides (NOx). Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Avoid breathing vapors or mists.
Eye contact	Causes serious eye irritation. Avoid contact with eyes.
Skin contact	Irritating to skin. May cause allergic skin reaction. Avoid contact with skin and clothing.
Ingestion	Do not taste or swallow.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Amines, C12-16-alkyldimethyl 68439-70-3	1015 mg/kg (RT)	-	-
2-ethyl hexanoic acid 149-57-5	= 2043 mg/kg (RT)	>2000 mg/kg (RBT)	-
Propiconazole 60207-90-1	= 1517 mg/kg (RT)	> 4000 mg/kg (RT)	>5.8 mg/L (RT) 4h

Dipropylene glycol methyl ether 34590-94-8	>5000 mg/kg (RT)	19020 mg/kg (RBT)	-
---	------------------	-------------------	---

Note:
RT = Rat
RBT = Rabbit
MSE = Mouse
GP = Guinea Pig
V = Vapour

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Irritating to skin.
Serious eye damage/eye irritation Irritating to eyes.
Sensitization May cause sensitization by skin contact.
Reproductive toxicity Product is or contains a chemical which is a known or suspected reproductive hazard.

Numerical measures of toxicity - Product Information

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

ATEmix (oral) 36 092.80 mg/kg
 ATEmix (dermal)
 ATEmix (inhalation-gas)
 ATEmix (inhalation-dust/mist)
 ATEmix (inhalation-vapor)

Numerical measures of toxicity

12. ECOLOGICAL INFORMATION

Ecotoxicity

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Amines, C12-16-alkyldimethyl 68439-70-3	0.0099 mg/L EC50 72h (Desmodesmus suspicatus)	0.256 mg/L LC50 96h (Danio rerio)	0.0558 mg/L EC50 48h (Daphnia magna)
2-ethyl hexanoic acid 149-57-5	49.3 mg/l EC50 72h (Desmodesmus suspicatus)	>100 mg/L LC50 96h (Oryzias latipes)	85 mg/L EC50 48h (Daphnia magna)
Propiconazole 60207-90-1	0.76 mg/L EC50 (Desmodesmus subspicatus)	4.3 mg/L LC50 96h (Oncorhynchus mykiss)	10.2 mg/L EC50 48h (Daphnia magna)
Dipropylene glycol methyl ether 34590-94-8	>969 mg/L EC50 72h (Pseudokirchneriella subcapitata)	>1000 mg/L LC50 96h (Poecilia reticulata)	1919 mg/L EC50 48h (Daphnia magna)

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Mobility

Partition coefficient.

Chemical Name	Partition coefficient
2-ethyl hexanoic acid 149-57-5	2.7
Dipropylene glycol methyl ether 34590-94-8	-0.064

Other adverse effects No information available

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	Do not reuse container. Empty containers must be tripled rinsed prior to disposal.

14. TRANSPORT INFORMATION

DOT Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US 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	Yes
Chronic Health Hazard	Yes
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, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Propiconazole 60207-90-1	-	X	-

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
2-ethyl hexanoic acid 149-57-5	X	-	-
Propiconazole 60207-90-1	X	-	-
Polydimethylsiloxane 63148-62-9	X	-	X
Sulphuric acid 7664-93-9	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Custom Blend

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 2	Flammability 0	Instability 0	Physical and Chemical Properties -
HMIS	Health hazards 2	Flammability 0	Physical hazards 0	Personal protection X

Issue Date 07-31-2020

Revision Date 07-31-2020

Revision Note

No information available

Disclaimer

The information provided in this Material 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 for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

Novastat® P50 + Emulse XT + Defoamer D (0.6+4.4+0.15) NOVATECH WOOD PROTECTION

Contains

This chemical is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

- 2-ethyl hexanoic acid.....149-57-5.....1 -5%
- Dipropylene glycol methyl ether.....34590-94-8.....0.1 - 1%
- Propiconazole.....60207-90-1.....0.3%
- Amines, C12-16-alkyldimethyl.....68439-70-3.....1 - 5%



Danger

Hazard statements

- Causes skin irritation
- Causes serious eye irritation
- This product is toxic to fish and shrimp

Precautionary Statements - Prevention

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood Use personal protective equipment as required
- Wash face, hands and any exposed skin thoroughly after handling

Precautionary Statements - Response

- IF exposed or concerned: Get medical advice/attention
- Specific treatment (see First Aid on this label)

Precautionary Statements - Storage

- Store locked up

Precautionary Statements - Disposal

- Dispose of contents/container to an approved waste disposal plant

Spill or leak statements: Prevent further leakage or spillage if safe to do so.

FIRST AID

- Eye contact:** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Do not rub affected area.
- Skin contact:** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- Inhalation:** Remove to fresh air. Call a physician immediately. If not breathing, give artificial respiration.
- Ingestion:** If swallowed, call a poison control center or physician immediately. If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Handling: Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing.

Storage: Keep containers tightly closed in a dry, cool and well-ventilated place.

Novatech Wood Protection Inc.
340 Fiddlers Ct.
St Augustine, Florida, 32080
CHEMTREC 1-800-424-9300
Novatech 1-904-547-2004

SECTION 1 - IDENTIFICATION

PRODUCT IDENTIFIER: DEFOAMER D

PRODUCT USE: Antifoaming Agent

MANUFACTURER:

NOVATECH Wood Protection Inc.
340 Fiddlers Ct
St Augustine, Florida
32080

Phone: (904) 547-2004

In Case of a Chemical Emergency Call: CHEMTREC (800) 424-9300 (in the U.S.), CANUTEC (613) 996-6666 (in Canada)

SECTION 2 - HAZARD IDENTIFICATION

HAZARD CLASSIFICATION: Not a hazardous substance or mixture.

SIGNAL WORD: None.

HAZARD STATEMENT: Not required.

HAZARD SYMBOL: None.

PRECAUTIONARY STATEMENT: Not required.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	CAS NUMBER	% (W/W)
None	-	-

SECTION 4 - FIRST AID MEASURES

EYE CONTACT: Hold eyelids open and flush with a steady, gentle stream of water for 15 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. Patient should contact an ophthalmologist if photophobia, pain, blinking, tears or redness persist.

SKIN CONTACT: Remove contaminated clothing immediately. Wash with plenty of soap and water. Get medical attention if irritation develops or burns evident. Launder clothing before re-use.

INGESTION: Do not induce vomiting. Promptly drink 1-2 glasses of water. Avoid alcohol. Never give anything by mouth to an unconscious person. Contact a physician or poison control center immediately. Probable mucosal damage may contraindicate the use of gastric lavage.

INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Use dry chemical, water fog, carbon dioxide, or chemical foam. Do not use direct jet of water.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Combustion products may be toxic.

SPECIAL PROTECTIVE ACTIONS FOR FIRE FIGHTERS: Cool fire exposed containers with spray. Use water spray to disperse vapours. Wear full protective equipment and MSHA/NIOSH approved self-contained breathing apparatus. Vapours may be heavier than air and may travel long distances along the ground before igniting and flashing back to the source.

SAFETY DATA SHEET

DEFOAMER D

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION: Wear rubber or PVC gloves, goggles or safety glasses, other personal protective equipment as required to avoid skin contact. Keep people away from spill/leak.

ENVIRONMENTAL PRECAUTIONS: Do not flush to sewer. Do not contaminate water when disposing of equipment washwaters. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, federal, state/provincial and local laws. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Dike and contain spill with inert material (sand, earth, etc.); package and label for legal disposal. For a small spill, absorb onto inert medium such as sand or dry earth; Package in an appropriate container and label for legal disposal. If it is a large spill stop leak if without risk. Contain large spills and pump away excess into a dry container. Absorb remainder with dry earth, sand or other non-combustible material. Prevent entry into sewers, basements or confined areas; dike if needed.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Handle in accordance with good industrial hygiene practice.

CONDITIONS FOR SAFE STORAGE: Store in closed containers in a cool, dry place. Do not mix with incompatible materials. Keep away from fire, sparks, and other ignition sources. Keep from freezing. Store in original container.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS: Contains no substance with occupational exposure limit values.

ENGINEERING CONTROLS: In processes where mists or vapours may be generated, proper ventilation must be provided in accordance with good ventilation practices. General ventilation is normally adequate provided spray mists are contained through negative pressure spraybox design with integrated mist eliminator.

RESPIRATORY PROTECTION: A NIOSH approved cartridge respirator should be worn when in enclosed or poorly ventilated areas to prevent inhalation of mists or aerosols.

SKIN PROTECTION: As required to prevent skin contact. Wash hands at mealtime and end of shift.

EYE AND FACE PROTECTION: Chemical goggles, safety glasses or face shield.

OTHER: Wear such clothing and footwear as to prevent skin contact. Maintain an eyewash facility, and emergency shower.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White liquid	VAPOUR PRESSURE: N/Av
ODOUR: None	VAPOUR DENSITY: N/Av
ODOUR THRESHOLD: N/Av	DENSITY: 1.0 g/mL @ 20°C (8.345 lbs/USgal)
pH: 3 – 5	SOLUBILITY: Miscible in water
FREEZING POINT: <-1°C (<30°F)	n-OCTANOL/WATER PARTION COEFFICIENT: N/Av
BOILING POINT: >100°C (>212°F)	AUTOIGNITION TEMPERATURE: N/Av
FLASH POINT: >101°C (>214°F)	DECOMPOSITION TEMPERATURE: N/Av
EVAPORATION RATE: N/Av	KINEMATIC VISCOSITY: 250\0 cSt
UPPER EXPLOSION LIMIT: N/Av	VOC (%w/w): 7.2% (0.601 lbs/USgal)
LOWER EXPLOSION LIMIT: N/Av	

N/Av : Not Available

SAFETY DATA SHEET

DEFOAMER D

SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY: None.

CHEMICAL STABILITY: Stable under recommended storage conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: Not expected.

CONDITIONS TO AVOID: Not known.

INCOMPATIBLE MATERIALS: Avoid contact with strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Pyrolysis may generate carbon oxides, silicon dioxide and formaldehyde.

SECTION 11 - TOXICOLOGICAL INFORMATION

ROUTE(S) OF EXPOSURE: Skin, Eyes, Inhalation, Ingestion.

ACUTE TOXICITY: LD50 (oral, rat) >5000 mg/kg

SKIN CORROSION/IRRITATION: Not classified based on available information.

SERIOUS EYE DAMAGE/IRRITATION: Direct contact with eyes may cause temporary redness and discomfort.

RESPIRATORY OR SKIN SENSITIZATION: Not classified based on available information.

GERM CELL MUTAGENICITY: Not classified based on available information.

CARCINOGENICITY: Not listed under IARC, NTP, OSHA.

REPRODUCTIVE TOXICITY: Not classified based on available information.

STOT-SINGLE EXPOSURE: Not classified based on available information.

STOT-REPEATED EXPOSURE: Not classified based on available information.

ASPIRATION HAZARD: Not classified based on available information.

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY: N/Av

PERSISTENCE AND DEGRADABILITY: N/Av

BIOACCUMULATIVE POTENTIAL: N/Av

MOBILITY IN SOIL: N/Av

SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state/provincial, and federal regulations.

SECTION 14 - TRANSPORT INFORMATION

CANADIAN TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:

Not regulated.

US DOT HAZARDOUS MATERIALS REGULATIONS:

Not regulated.

SECTION 15 - REGULATORY INFORMATION

CANADIAN FEDERAL REGULATIONS:

WHMIS: Not regulated.

This product has been classified under WHMIS 1998.

UNITED STATES FEDERAL REGULATIONS:

HMIS: Health 0, Flammability 0, Reactivity 0, Personal Protective Equipment X

This product has been classified under 29CFR and the SDS contains information elements required under 29CFR.

SARA SECTION 302 (40CFR355.30), SARA SECTION 304 (40CFR355.40) :

This product does not contain any chemicals that require emergency planning based on Threshold Planning Quantities (TPQ) or release reporting based on Reportable Quantities (RQ).

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21):

Not classified.

SARA SECTION 313 (40CFR372.65):

This product does not contain any toxic chemicals subject to the reporting requirements of the Emergency Planning Community Right-to-Know Act of 1986.

OSHA HAZARD COMMUNICATION STANDARD:

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29CFR 1910.1200.

TSCA STATUS:

All components of this product are included on the TSCA Chemical Inventory or exempt from listing on the TSCA Inventory of Chemical Substances.

CALIFORNIA PROPOSITION 65:

This product contains no chemicals declarable under California Proposition 65.

SECTION 16 – OTHER INFORMATION

PREPARATION DATE: November 20, 2020

PREPARED BY: NOVATECH

REVISIONS: 210131

NOTICE: Every effort is made to ensure that the data presented herein are current and factual; however, no warranty or any other legal responsibility is to be construed from this document. Numerical data represent nominal and/or typical properties and do not constitute specifications. Any use of the information presented herein must be determined by the user to be in accordance with applicable Federal, Provincial and local laws and regulations.

DEFOAMER - D

ANTI-FOAMING AGENT

INFORMATION

PRINCIPAL FUNCTIONING AGENTS:

Simethicone: 10%

CONSTITUENTS INEFFECTIVE AS SPRAY ADJUVANTS: 90%

TOTAL 100%

WA REG. No. 94502-20003

NET CONTENTS US GAL.

READ LABEL BEFORE USE

PRODUCT DESCRIPTION & USE

DESCRIPTION & DIRECTIONS FOR USE

This product is an antifoam compound for use with compatible antispain products. Read and understand this label, and the registered pesticide label, before use. For addition to RTU (ready-to-use) solutions only - do not add directly to antispain concentrates nor directly to tank-mix concentrates. Use as required to control foam; maximum dose should not exceed 1 part antifoam per 1000 parts RTU solution. This product may be pre-diluted with water to facilitate dose control. Caution: persistent, non-responsive foams will not respond to excessive dosage; gross overuse may compromise filtration and nozzle flow.

STORAGE & DISPOSAL

Use reasonable care and store away from oxidizing materials. Use with adequate ventilation. Rinse the empty containers, then recycle or dispose of container in accordance with applicable State and local requirements.

CAUTION

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN

Not for aquatic use. Avoid contact with eyes, skin and clothing. Wear gloves, and chemical goggles or safety glasses. Wear additional protective equipment as required to prevent skin contact.

FIRST AID

If eye contact occurs, flush with gentle stream of water for 20 minutes, then seek immediate medical attention. If skin contact occurs, wash affected area with soap and water. Get medical attention if irritation persists. If ingested, give conscious patients large quantities of water and seek immediate medical attention. If inhaled, remove victim to fresh air. Give artificial respiration if indicated.

SECTION 1 - IDENTIFICATION

PRODUCT IDENTIFIER: Novastat® IC-20

PRODUCT USE: Sapstain Control Product

MANUFACTURER:

Novatech Wood Protection Inc.
340 Fiddlers Ct.
St Augustine, Florida, USA
32080

Phone: (904) 547-2004
(904) 728-2312

In Case of a Chemical Emergency Call: CHEMTREC (800) 424-9300 (in the U.S.), CANUTEC (613) 996-6666 (in Canada)

SECTION 2 - HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION: Skin corrosion/irritation (Category 2), Serious eye damage/eye irritation (Category 2B), Specific target organ toxicity-Single exposure (Category 3, Respiratory tract irritation).

SIGNAL WORD: Warning.

HAZARD STATEMENT: Causes skin and eye irritation. May cause respiratory irritation.

HAZARD SYMBOL: Exclamation mark.

PRECAUTIONARY STATEMENT:

Prevention: Wear protective gloves. Wear eye/face protection. Use only outdoors or in a well-ventilated area. Avoid breathing vapour. Wash hands thoroughly after handling.

Response: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove Contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage: Store locked up.

Disposal: Dispose of contents and container in accordance with local/state/federal regulations.

Hazards not otherwise classified: Prolonged or repeated contact may dry skin and cause irritation.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	CAS NUMBER	% (W/W)
3-Iodo-2-propynyl butyl carbamate	55406-53-6	20
Aliphatic alcohol	Proprietary	30 – 50
Glycol ether	Proprietary	30 – 50

SECTION 4 - FIRST AID MEASURES

EYE CONTACT: Hold eyelids open and flush with a steady, gentle stream of water for 15 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. Patient should contact an ophthalmologist if photophobia, pain, blinking, tears or redness persist.

SKIN CONTACT: Remove contaminated clothing immediately. Wash with plenty of soap and water. Get medical attention if irritation develops or burns evident. Launder clothing before re-use.

INGESTION: Do not induce vomiting. Give small quantities of water to drink. Avoid alcohol. Never give anything by mouth to an unconscious person. Contact a physician or poison control center immediately. Probable mucosal damage may contraindicate the use of gastric lavage.

INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Use dry chemical, water fog, carbon dioxide, or chemical foam. Do not use direct jet of water.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Combustion products are toxic and may include carbon monoxide, carbon dioxide, iodine vapours and halogenated compounds.

SPECIAL PROTECTIVE ACTIONS FOR FIRE FIGHTERS: Cool fire exposed containers with spray. Use water spray to disperse vapours. Wear full protective equipment and MSHA/NIOSH approved self-contained breathing apparatus. Vapours may be heavier than air and may travel long distances along the ground before igniting and flashing back to the source.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION: Wear rubber gloves, goggles or safety glasses, other personal protective equipment as required to avoid skin contact. Keep people away from spill/leak.

ENVIRONMENTAL PRECAUTIONS: Do not flush to sewer. This product is toxic to fish. Do not contaminate water when disposing of equipment washwaters. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, federal, state/provincial and local laws. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Always wear appropriate protective equipment prior to handling hazardous materials. Use a NIOSH approved cartridge respirator if the area is not well ventilated and during clean-up, maintenance and repair activities. Remove ignition sources and ground all equipment before beginning clean-up. Dike and contain spill with inert material (sand, earth, etc.); package and label for legal disposal. For a small spill, absorb onto inert medium such as sand or dry earth; Package in an appropriate container and label for legal disposal. If it is a large spill stop leak if without risk. Contain large spills and pump away excess into a dry container. Absorb remainder with dry earth, sand or other non-combustible material. Prevent entry into sewers, basements or confined areas; dike if needed.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Handle in accordance with good industrial hygiene practice. Prevent contact with eyes, skin, and clothing. Wash thoroughly after handling. Avoid breathing vapour or spray mist.

CONDITIONS FOR SAFE STORAGE: Store in sealed original container in a cool, dry, ventilated area. Do not mix with incompatible materials. Do not store in direct sunlight. Keep away from fire, sparks and other ignition sources. Keep from freezing. Do not contaminate water, food, or feed by storage or disposal.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS: None.

ENGINEERING CONTROLS: In processes where mists or vapours may be generated, proper ventilation must be provided in accordance with good ventilation practices. General ventilation is normally adequate provided spray mists are contained through negative pressure spraybox design with integrated mist eliminator.

RESPIRATORY PROTECTION: A NIOSH approved cartridge respirator should be worn when in enclosed or poorly ventilated areas.

SKIN PROTECTION: Impervious apron to prevent skin contact. Wear rubber or neoprene gloves.

EYE AND FACE PROTECTION: Chemical goggles, safety glasses or face shield. Do not wear contact lenses.

OTHER: Wear such clothing and footwear as to prevent skin contact. Maintain an eyewash facility, and emergency shower.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Yellow liquid	VAPOUR PRESSURE: 0.0017 kPa (0.013 mmHg)
ODOUR: Characteristic	VAPOUR DENSITY: Heavier than air
ODOUR THRESHOLD: N/Av	DENSITY: 1.045 g/mL @ 20°C (8.721 lbs/USgal)
pH: N/Av	SOLUBILITY: Slightly soluble in water (500-860 g/L)
FREEZING POINT: -50°C (-58°F)	n-OCTANOL/WATER PARTITION COEFFICIENT: N/Av
BOILING POINT: 160°C (320°F)	AUTOIGNITION TEMPERATURE: N/Av
FLASH POINT: >110°C (>230°F)	DECOMPOSITION TEMPERATURE: N/Av
EATION RATE: <1 (butyl acetate = 1)	KINEMATIC VISCOSITY: N/Av
UPPER EXPLOSION LIMIT: N/Av	DYNAMIC VISCOSITY: N/Av
LOWER EXPLOSION LIMIT: N/Av	VOC (%w/w): 80% (6.977 lbs/USgal)

SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY: Not available for mixture.

CHEMICAL STABILITY: Stable under recommended storage conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: Will not occur.

CONDITIONS TO AVOID: Heat, flame, freezing.

INCOMPATIBLE MATERIALS: Avoid contact with acids, strong oxidizers and reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon, iodine vapours and halogenated compounds.

SECTION 11 - TOXICOLOGICAL INFORMATION

ROUTE(S) OF EXPOSURE: Skin, Eyes, Inhalation, Ingestion.

ACUTE TOXICITY:

LD50: 3175 mg/kg (oral, rat), LD50 >4000 mg/kg (dermal, rabbit), LC50: 7.5 mg/L (estimate)

SKIN CORROSION/IRRITATION: Severe irritant. Adverse symptoms may include pain/irritation, watering and redness.

SERIOUS EYE DAMAGE/IRRITATION: Mild irritant. Adverse symptoms may include irritation, redness, dryness and cracking.

RESPIRATORY OR SKIN SENSITIZATION: Did not cause sensitization on laboratory animals. Inhalation may cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. Adverse symptoms may include respiratory tract irritation and coughing.

GERM CELL MUTAGENICITY:

Aliphatic alcohol: Negative (in vitro – bacteria)

3-iodo-2-propynyl butylcarbamate: Negative (in vitro – mammalian)

CARCINOGENICITY: Not available.

REPRODUCTIVE TOXICITY:

3-iodo-2-propynyl butylcarbamate:

Negative (maternal/developmental toxicity), Species: Rabbit, Dose (oral): 20 mg/kg, Exposure: 13 days.

Positive (maternal toxicity), Species: Rabbit, Dose (oral): 50 mg/kg, Exposure: 13 days.

Negative (developmental toxicity), Species: Rabbit, Dose (oral): 50 mg/kg, Exposure: 13 days.

TERATOGENICITY:

3-iodo-2-propynyl butylcarbamate: Negative, Species: Rabbit, Dose (oral): 50 mg/kg

STOT-SINGLE EXPOSURE:

Glycol ether: Respiratory tract irritation (Category 3)

3-iodo-2-propynyl butylcarbamate: Respiratory tract irritation (Category 3)

STOT-REPEATED EXPOSURE: N/Av

ASPIRATION HAZARD: N/Av

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY: This product is toxic to fish and shrimp.
 Glycol ether: LC50 (fish, 96 hr): 11619 mg/L
 Aliphatic alcohol: LC50 (fish-pimephales promelas, 96 hr): 33 mg/L
 3-iodo-2-propynyl butylcarbamate: LC50 (fish-rainbow trout, 96 hr): 0.067 mg/L

PERSISTENCE AND DEGRADABILITY:

Readily biodegradable.

BIOACCUMULATIVE POTENTIAL:

Glycol ether: Bioconcentration factor (BCF) <100, Log P_{ow}: 0.31
 Aliphatic alcohol: Bioconcentration factor (BCF): 60.03, Log P_{ow}: 3.2
 3-iodo-2-propynyl butylcarbamate: Log P_{ow}: 2.81

MOBILITY IN SOIL:

N/Av

SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state/provincial, and federal regulations.

SECTION 14 - TRANSPORT INFORMATION

CANADIAN TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:

UN3082 Environmentally Hazardous Substance, Liquid n.o.s. (3-iodo-2-propynyl butyl carbamate), Class 9, PG III

US DOT HAZARDOUS MATERIALS REGULATIONS:

UN3082 Environmentally Hazardous Substance, Liquid n.o.s. (3-iodo-2-propynyl butyl carbamate), Class 9, PG III

SECTION 15 - REGULATORY INFORMATION

CANADIAN FEDERAL REGULATIONS:

WHMIS: Class D2B

This product has been classified under the WHMIS 1998.

UNITED STATES FEDERAL REGULATIONS:

HMIS: Health 2, Flammability 1, Reactivity 0, Personal Protective Equipment X

This product has been classified under 29CFR and the SDS contains information elements required under 29CFR.

SARA SECTION 302 (40CFR355.30), SARA SECTION 304 (40CFR355.40):

This product does not contain any chemicals that require emergency planning based on Threshold Planning Quantities (TPQ) or release reporting based on Reportable Quantities (RQ).

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21):

Acute Health Hazard

SARA SECTION 313 (40CFR372.65):

This product contains the following toxic chemicals subject to the reporting requirements of the Emergency Planning Community Right-to-Know Act of 1986. This information must be included in all MSDS's that are copied and distributed for this material.

3-iodo-2-propynyl butyl carbamate 55406-53-6 20%

OSHA HAZARD COMMUNICATION STANDARD:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29CFR 1910.1200.

CALIFORNIA PROPOSITION 65:

This product does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

US EPA Registration No. 5383-74-70227

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.

Danger

Hazardous to humans

Corrosive. Causes irreversible eye damage. May be fatal if inhaled. Causes skin irritation. Harmful if swallowed or absorbed through skin. Do not get in eyes, or skin, or on clothing. Do not breathe vapours or spray mist.

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY: This product is toxic to fish and shrimp.
 Glycol ether: LC50 (fish, 96 hr): 11619 mg/L
 Aliphatic alcohol: LC50 (fish-pimephales promelas, 96 hr): 33 mg/L
 3-iodo-2-propynyl butylcarbamate: LC50 (fish-rainbow trout, 96 hr): 0.067 mg/L

PERSISTENCE AND DEGRADABILITY:

Readily biodegradable.

BIOACCUMULATIVE POTENTIAL:

Glycol ether: Bioconcentration factor (BCF) <100, Log P_{ow}: 0.31
 Aliphatic alcohol: Bioconcentration factor (BCF): 60.03, Log P_{ow}: 3.2
 3-iodo-2-propynyl butylcarbamate: Log P_{ow}: 2.81

MOBILITY IN SOIL:

N/Av

SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state/provincial, and federal regulations.

SECTION 14 - TRANSPORT INFORMATION

CANADIAN TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:

UN3082 Environmentally Hazardous Substance, Liquid n.o.s. (3-iodo-2-propynyl butyl carbamate), Class 9, PG III

US DOT HAZARDOUS MATERIALS REGULATIONS:

UN3082 Environmentally Hazardous Substance, Liquid n.o.s. (3-iodo-2-propynyl butyl carbamate), Class 9, PG III

SECTION 15 - REGULATORY INFORMATION

CANADIAN FEDERAL REGULATIONS:

WHMIS: Class D2B

This product has been classified under the WHMIS 1998.

UNITED STATES FEDERAL REGULATIONS:

HMIS: Health 2, Flammability 1, Reactivity 0, Personal Protective Equipment X

This product has been classified under 29CFR and the SDS contains information elements required under 29CFR.

SARA SECTION 302 (40CFR355.30), SARA SECTION 304 (40CFR355.40):

This product does not contain any chemicals that require emergency planning based on Threshold Planning Quantities (TPQ) or release reporting based on Reportable Quantities (RQ).

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21):

Acute Health Hazard

SARA SECTION 313 (40CFR372.65):

This product contains the following toxic chemicals subject to the reporting requirements of the Emergency Planning Community Right-to-Know Act of 1986. This information must be included in all MSDS's that are copied and distributed for this material.

3-iodo-2-propynyl butyl carbamate 55406-53-6 20%

OSHA HAZARD COMMUNICATION STANDARD:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29CFR 1910.1200.

CALIFORNIA PROPOSITION 65:

This product does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

US EPA Registration No. 5383-74-94502

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.

Danger

Hazardous to humans

Corrosive. Causes irreversible eye damage. May be fatal if inhaled. Causes skin irritation. Harmful if swallowed or absorbed through skin. Do not get in eyes, or skin, or on clothing. Do not breathe vapours or spray mist.

SECTION 16 – OTHER INFORMATION

PREPARATION DATE: 30 January 2021

PREPARED BY: Novatech Wood Protection Inc.

REVISION: 210130

NOTICE: Every effort is made to ensure that the data presented herein are current and factual; however, no warranty or any other legal responsibility is to be construed from this document. Numerical data represent nominal and/or typical properties and do not constitute specifications. Any use of the information presented herein must be determined by the user to be in accordance with applicable Federal, State/Provincial and local laws and regulations.

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS**

CAUTION

Harmful if inhaled. Avoid breathing vapors or spray mist. Causes moderate eye irritation. Causes skin irritation. Harmful if swallowed or absorbed through skin. Avoid contact with eyes, skin or clothing.

Wear goggles or face shield.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear:

- Long-sleeve shirt and long pants
- Chemical-resistant gloves such as Nitrile, Viton, Neoprene and/or Barrier laminate
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove personal protective equipment immediately after handling this product. Wash the outside of gloves before removing. As soon as possible wash thoroughly.

IF IN EYES:	<p>FIRST AID</p> <ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice. • Move person to fresh air. • If person is not breathing call 911 or an ambulance, then give artificial respiration preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	<ul style="list-style-type: none"> • Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</p>	

NOVASTAT[®] IC-20

A Fungicide for Use in Aqueous and Solvent Systems such as Oleo-Resinous and Latex Paints, Wood Products, Inks, Adhesives and Paper Coatings

INDUSTRIAL FUNGICIDE

ACTIVE INGREDIENT	% Weight
3-Iodo-2-Propynyl Butyl Carbamate	20.0%
INERT INGREDIENTS	80.0%
TOTAL	100.0%

CAUTION KEEP OUT OF REACH OF CHILDREN

**SOLD FOR INDUSTRIAL USE
SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS**

**IN CASE OF EMERGENCY: CALL
1-800-424-9300 (CHEMTREC)**

Produced for:
NOVATECH WOOD PROTECTION INC.
340 Fiddler Ct
St. Augustine, Florida 32080
(904) 547-2004
(904) 728-2312

EPA Reg. No. 5383-74-94502
EPA Est. No. 44637-FL-1
WA Reg. No. 5383-74-94502

Net Weight: **450 Lbs**

Batch No.: _____

*Novastat is a registered trademark of Novatech Wood Protection Inc.

ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional office of the EPA.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

APPLICATION INSTRUCTIONS

The following are suggested use levels for Novastat[®] IC-20. Typical use levels given for the various applications indicate the approximate levels for the particular application. All suggestions are in percentage by weight and refer to the product Novastat[®] IC-20. In order to determine the most cost effective use level for Novastat[®] IC-20 in a given use, field trials are suggested.

PAINTS AND STAINS: Generally use 0.5-1.5%. For hot, humid areas use up to 2.5%. For interior paints use 0.2-0.8%. Wood protective stains will use 1.0-1.5%.

METALWORKING: To inhibit the growth of fungi in metalworking, cutting fluids, cooling, and lubricating fluids add Novastat IC-20 to metalworking concentrate that will result in a 0.15 – 0.5% concentration in the diluted fluid or add 0.15 -0.5% of Novastat IC-20 to the use dilution of the fluid.

WOOD: For above ground use only at rates of 2.5-6.0% depending on protection desired. For millwork use rates of 1.5-2.5%. Do not use on wood surfaces that come in contact with food. Surfaces which may be in continuous contact with skin must be coated with a varnish, or lacquer after treatment with Novastat[®] IC-20.

ADHESIVES: Use 0.125-0.5%.

INKS: Use 0.25-2.5%.

PAPER COATINGS: Use in aqueous and solvent based coatings applied to paper at 0.25-1.0%.

PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Do not store at low or extreme temperatures.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticides, spray mixture, or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State pesticide or environmental control agency or the hazardous waste representative at the nearest EPA regional office for guidance.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent). Then offer for recycling or reconditioning if available, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

SECTION 1 - IDENTIFICATION

PRODUCT IDENTIFIER: WOODBRITE CQ

PRODUCT USE: Acidifier/Chelating Agent

MANUFACTURER:

NOVATECH WOOD PROTECTION INC.

340 Fiddlers Ct

St Augustine, Florida, USA

32080

Phone: (904)-547-2004

In Case of a Chemical Emergency Call: CHEMTREC 1-800-424-9300 (Outside USA: 1-703-527-3887)

SECTION 2 - HAZARD IDENTIFICATION

HAZARD CLASSIFICATION: Corrosive to metals (Category 1), Skin corrosion (Category 1), Serious eye damage (Category 1), Specific target organ toxicity-single exposure (Category 3, target organ: respiratory system), Specific target organ toxicity-repeated exposure (Category 2, target organ: kidney, liver)

SIGNAL WORD: Danger.

HAZARD STATEMENT: May be corrosive to metals. Causes severe skin burns and eye damage. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure.

HAZARD SYMBOL: Corrosion, Health hazard.

PRECAUTIONARY STATEMENT:

Prevention: Do not breathe mist, vapours or spray. Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area. Keep only in original container.

Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Absorb spillage to prevent material damage.

Storage: Store locked up in a well-ventilated, dry place. Keep container tightly closed. Store in corrosive resistant container with a resistant inner liner.

Disposal: Dispose of contents/container in accordance with local, state and federal regulations.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS	CAS NUMBER	% (W/W)
Hydrochloric Acid	7647-01-0	1 – 5
Phosphonomethylated high-boiling fraction hydrogenated hexanedinitrile	68955-64-6	5 – 20
Phosphoric Acid	7664-38-2	15 – 30

SECTION 4 - FIRST AID MEASURES

EYE CONTACT: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Immediately call a poison control center or doctor for treatment advice. Patient should contact an ophthalmologist if photophobia, pain, blinking, tears or redness persist.

SKIN CONTACT: Remove contaminated clothing immediately. Wash with plenty of soap and water. Get medical attention if irritation develops or burns evident. Launder clothing before re-use.

INGESTION: Do not induce vomiting. Promptly drink 1-2 glasses of water. Avoid alcohol. Never give anything by mouth to an unconscious person. Contact a physician or poison control center immediately. Probable mucosal damage may contraindicate the use of gastric lavage.

INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration using a respiratory medical device. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance. Get medical attention.

SECTION 5 - FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Use dry chemical, water fog, carbon dioxide, or chemical foam. Do not use direct jet of water.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Corrosive material. Combustion products are toxic and may include corrosive acid gases, phosphines, oxides of carbon, nitrogen and phosphorus.

SPECIAL PROTECTIVE ACTIONS FOR FIRE FIGHTERS: Cool fire exposed containers with spray. Use water spray to disperse vapours. Wear full protective equipment and MSHA/NIOSH approved self-contained breathing apparatus. Vapours may be heavier than air and may travel long distances along the ground before igniting and flashing back to the source.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION: Wear rubber gloves, goggles or safety glasses, other personal protective equipment as required to avoid skin contact. Keep people away from spill/leak.

ENVIRONMENTAL PRECAUTIONS: This product is toxic to fish. Do not flush to sewer. Do not contaminate water when disposing of equipment washwaters. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, federal, state and local laws. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Always wear appropriate protective equipment prior to handling hazardous materials. Use a NIOSH approved cartridge respirator if the area is not well ventilated and during clean-up, maintenance and repair activities. Dike and contain spill with inert material (sand, earth, etc.); package and label for legal disposal. For a small spill, absorb onto inert medium such as sand or dry earth; Package in an appropriate container and label for legal disposal. If it is a large spill stop leak if without risk. Contain large spills and pump away excess into a dry container. Absorb remainder with dry earth, sand or other non-combustible material. Prevent entry into sewers, basements or confined areas; dike if needed.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Handle in accordance with good industrial hygiene practice. Prevent contact with eyes, skin, and clothing. Wash thoroughly after handling. Avoid breathing vapour or spray mist.

CONDITIONS FOR SAFE STORAGE: Store in sealed original container in a cool, dry, ventilated area. Do not mix with incompatible materials. Do not store in direct sunlight. Keep from freezing. Do not contaminate water, food, or feed by storage or disposal.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS:

Hydrochloric acid:

2 ppm (TLV-Ceiling), 5 ppm (OSHA PEL – TLV Ceiling), 50 ppm (IDLH)

Phosphoric acid:

1 mg/m³ (OSHA-PEL, TLV-TWA), 3 mg/m³ (TLV-STEL), 1000 mg/m³ (NOISH-IDLH)

ENGINEERING CONTROLS: In processes where mists or vapours may be generated, proper ventilation must be provided in accordance with good ventilation practices. General ventilation is normally adequate provided spray mists are contained through negative pressure spraybox design with integrated mist eliminator.

RESPIRATORY PROTECTION: A NIOSH approved cartridge respirator should be worn when in enclosed or poorly ventilated areas.

SKIN PROTECTION: Impervious apron to prevent skin contact. Wear rubber or neoprene gloves.

EYE AND FACE PROTECTION: Chemical goggles, safety glasses or face shield. Do not wear contact lenses.

OTHER: Wear such clothing and footwear as to prevent skin contact. Maintain an eyewash facility and emergency shower.

SAFETY DATA SHEET WOODBRITE CQ

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Amber liquid	VAPOUR PRESSURE: N/Av
ODOUR: Faint	VAPOUR DENSITY: Heavier than air
ODOUR THRESHOLD: N/Av	DENSITY: 1.23 g/mL @ 20°C (10.265 lbs/USgal)
pH: < 2 (1% solution)	SOLUBILITY: Completely miscible in water
FREEZING POINT: <-1°C (<30°F)	n-OCTANOL/WATER PARTION COEFFICIENT: N/Av
BOILING POINT: >101°C (>14°F)	AUTOIGNITION TEMPERATURE: N/Av
FLASH POINT: Nonflammable	DECOMPOSITION TEMPERATURE: N/Av
EVAPORATION RATE: N/Av	KINEMATIC VISCOSITY: N/Av
UPPER EXPLOSION LIMIT: N/Av	DYNAMIC VISCOSITY: N/Av
LOWER EXPLOSION LIMIT: N/Av	VOC (%w/w): None

SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY: Under recommended storage and use, hazardous reactions will not occur.

CHEMICAL STABILITY: Stable under recommended storage conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: Reacts with strong alkalis, oxidizing materials and metals.

CONDITIONS TO AVOID: Avoid excess heat and contact with incompatible materials.

INCOMPATIBLE MATERIALS: Avoid contact with strong oxidizers, reducing agents, alkalis; all amphoteric metals including galvanized coatings.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon, nitrogen and phosphorus.

SECTION 11 - TOXICOLOGICAL INFORMATION

ROUTE(S) OF EXPOSURE: Skin, Eyes, Inhalation, Ingestion.

ACUTE TOXICITY:

LD50 > 2000 mg/kg (oral, rat)

LD50 > 2000 mg/kg (dermal, rat)

SKIN CORROSION/IRRITATION: Corrosive to skin.

SERIOUS EYE DAMAGE/IRRITATION: Corrosive to eyes.

RESPIRATORY OR SKIN SENSITIZATION: Did not cause sensitization on laboratory animals.

GERM CELL MUTAGENICITY:

Hydrochloric acid:

Mutagenic effects have occurred in experimental animals.

CARCINOGENICITY:

Hydrochloric acid:

Not listed under NTP or OSHA. Listed under Group 3 IARC and A4, ACGIH.

REPRODUCTIVE TOXICITY:

Hydrochloric acid:

Experiments have shown reproductive/teratogenic effects on laboratory animals.

STOT-SINGLE EXPOSURE: Respiratory system.

STOT-REPEATED EXPOSURE: Kidney, Liver.

ASPIRATION HAZARD: N/Av

SAFETY DATA SHEET WOODBRITE CQ

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY: LC50 (Fish - *Scophthalmus maximus*, 96 hr) > 100 mg/L

PERSISTENCE AND DEGRADABILITY:

Hydrochloric acid:

Persistence is unlikely based on information available.

BIOACCUMULATIVE POTENTIAL: N/Av

MOBILITY IN SOIL: Mobile in the environment due to its water solubility.

SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state/provincial, and federal regulations.

SECTION 14 - TRANSPORT INFORMATION

CANADIAN TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:

UN 3264, Corrosive Liquid, Acidic, Inorganic, N.O.S. (hydrochloric acid, phosphoric acid), Class 8, PG III

US DOT HAZARDOUS MATERIALS REGULATIONS:

UN 3264, Corrosive Liquid, Acidic, Inorganic, N.O.S. (hydrochloric acid, phosphoric acid), Class 8, PG III

SECTION 15 - REGULATORY INFORMATION

CANADIAN FEDERAL REGULATIONS:

WHMIS: Class E, D1A, D2B.

This product has been classified under WHMIS 1998.

UNITED STATES FEDERAL REGULATIONS:

HMIS: Health 3, Flammability 0, Reactivity 1, Personal Protective Equipment X

This product has been classified under 29CFR and the SDS contains information elements required under 29CFR.

SARA SECTION 302 (40CFR355.30), SARA SECTION 304 (40CFR355.40):

This product does not contain any chemicals that require emergency planning based on Threshold Planning Quantities (TPQ) or release reporting based on Reportable Quantities (RQ).

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21):

Acute Health Hazard, Chronic Health Hazard

SARA SECTION 313 (40CFR372.65):

This product contains the following toxic chemical subject to the reporting requirements of the Emergency Planning Community Right-to-Know Act of 1986. This information must be included in all MSDS's that are copied and distributed for this material.

Hydrochloric acid, CAS #: 7647-01-0, Weight %: <2%

OSHA HAZARD COMMUNICATION STANDARD:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29CFR 1910.1200.

CERCLA: If the reportable quantity of this product is accidentally spilled, the incident is subject to the provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and must be reported to the National Response Center by calling 800-424-8802.

Reportable Quantity: 5000 lbs (Hydrochloric acid, CAS # 7647-01-0)

5000 lbs (Phosphoric acid, CAS # 7664-38-2)

CLEAN AIR ACT (PART A, SECTION 112):

This product contains hydrochloric acid listed as a Hazardous Air Pollutant (HAP).

TSCA STATUS: All components of this product are listed on the TSCA Inventory or exempt from TSCA Inventory requirements.

CALIFORNIA PROPOSITION 65:

This product does not contain any chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SAFETY DATA SHEET
WOODBRITE CQ**SECTION 16 – OTHER INFORMATION**

PREPARATION DATE: November 20, 2020

PREPARED BY: NOVATECH

REVISIONS: 11202020

NOTICE: Every effort is made to ensure that the data presented herein are current and factual; however, no warranty or any other legal responsibility is to be construed from this document. Numerical data represent nominal and/or typical properties and do not constitute specifications. Any use of the information presented herein must be determined by the user to be in accordance with applicable Federal, State/Provincial and local laws and regulations.

WoodBrite CQ

ACIDIFIER

PRINCIPAL FUNCTIONING AGENT:

Phosphoric acid, Bishexamethylenetriamine
penta methylene phosphonic acid: 25%
 CONSTITUENTS INEFFECTIVE AS SPRAY ADJUVANTS: 75%
 TOTAL: 100%

DIRECTIONS FOR USE

This product is an acidifier for use with NOVASTAT brand antispain products. Read and understand this label and the NOVASTAT product label before use. For addition to RTU (ready-to-use) solutions only - do not add directly to NOVASTAT concentrates nor directly to tank-mix concentrates. Effective dosage to prevent or remedy iron-stain is highly variable depending upon wood species, duration of lumber contact with mild steel equipment, extractive accumulation, dissolved iron and microparticulate iron/oxide concentrations in RTU solutions. Minimum effective proportion is 1+750 (1 volume WoodBrite added to 750 volumes RTU solution); maximum proportion is the lesser of: 1+120 parts by volume or sufficient WoodBrite to depress RTU pH to 3.0. Silicone emulsion type antifoam products may be used in conjunction with WoodBrite-treated RTU solutions where required to suppress foam.

NET CONTENTS _____

WA REG. NO. 94502-20004

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DANGER

May be corrosive to metals
 Causes severe skin burns and eye damage
 May cause respiratory irritation
 May cause damage to organs through prolonged or repeated exposure

Wash skin thoroughly after handling. Wear protective gloves and protective clothing; eye and face protection. Avoid breathing mists. Use a respirator suitable for protection against corrosive mist if sprayed. Do not eat, drink or smoke/ when using this product. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid release to the environment. NOT for Aquatic use. Do not contaminate water by cleaning of equipment or disposal of wastes. Collect spillage.

First aid: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical attention. Absorb spillage to prevent material damage.

Storage: Store locked up in a well-ventilated, dry place. Keep container tightly closed. Store in corrosive resistant container with a resistant inner liner.

Disposal: Dispose of contents/container in accordance with local, state and federal regulations. Do not reuse empty containers.



340 FIDDLERS CT • St AUGUSTINE • FLORIDA, USA, 32080 • 904-547-2004

From: [Thomas Miller](#)
To: [Beth Ryder](#)
Cc: jack.carter@weyerhaeuser.com; [Steve Nielsen](#); [Maddie Coates](#)
Subject: RE: Woodbrite HCl content
Date: Friday, July 30, 2021 6:03:38 PM
Attachments: [image001.png](#)

Here's how I see it (please excuse the terse summary – clarity > eloquence).
You're right, mid-conference-call chain calculations are worth recording/examining:

Hydrochloric Acid

BHMT-40 contains 8% w/w HCl max.

Woodbrite contains 9% BHMT-40 ($8\% \times 9\% = 0.72\%$ net HCl). For certainty this is the Woodbrite concentrate as purchased/delivered.

The typical 1 :200 dilution “factor” is correctly 1+200 or 1/201, yielding $0.72\%/201 = 0.003582\%$ w/w HCl. For clarity this is the final dilution as applied to lumber, “ready-to-use” or “RTU”.

Using the evaporative loss figure of 0.6 USGPH of “RTU” (per Garrett) we therefore expect evaporative loss of $0.6 \text{ USGPH} \times 3.78541 \text{ L/USG} \times 0.9150 \text{ Kg/L} \times 2.2046 \text{ Lbs/Kg} \times 0.003582\% \text{ HCl} \times 24\text{Hr/day} = 0.003938 \text{ Lbs/day}$ as HCl.

Phosphoric Acid

Woodbrite contains 19.50% w/w phosphoric acid as H₃PO₄ (apologies, I neglected to correct for % H₃PO₄ in commercial phos acid on telecon). Again this is the Woodbrite concentrate as purchased/delivered.

The RTU thus contains $19.5\%/201 = 0.0970\%$ H₃PO₄.

Again using the evaporative loss figure of 0.6 USGPH of “RTU” we therefore expect evaporative loss of $0.6 \text{ GPH} \times 3.78541 \text{ L/USG} \times 0.9150 \text{ Kg/L} \times 2.2046 \text{ Lbs/Kg} \times 0.0970\% \text{ H}_3\text{PO}_4 \times 24\text{Hr/day} = 0.1067 \text{ Lbs/day}$ as H₃PO₄.

(RTU density calculated as 0.9150 based on 12/88 custom blend, antifoam, Woodbrite components).

/tmm

Tom Miller, Managing Director
(604) 218-5132



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From: Beth Ryder <bRyder@trinityconsultants.com>
Sent: 2021.07.30 4:32 PM

To: Tom Miller <tmiller@cogenta.ca>

Cc: jack.carter@weyerhaeuser.com; Steve Nielsen <snilsen@novatechwp.com>; Maddie Coates <Madison.Coates@trinityconsultants.com>

Subject: RE: Woodbrite HCl content

Tom, I was double checking numbers to make sure our math was correct. On our call you had mentioned 0.72% w/w for HCl. I believe your 0.0037% w/w HCl agrees with that value. However, using 0.75% w/w of HCl, I think the final value would be 0.0038%w/w.

Which content value is correct?

On another note, with the updated methods of calculation the Phosphoric Acid has an emission rate of 0.22 lbs/day which is less than the SQER of 0.52 lbs/day. TBACT assessment will be required since emissions exceed the de minimis level, but no modeling.

Thanks,
Beth

Beth Ryder
Managing Consultant

P 458.206.6770
12725 SW Millikan Way, Suite 300, [Beaverton, OR](#) 97005
Email: bryder@trinityconsultants.com

Upcoming Events:
[11/10-11 – Environmental Reporting Requirements in Oregon \(PORTLAND\)*](#)

**Event may be held virtually, depending on local COVID-19 restrictions.*

From: Tom Miller <tmiller@cogenta.ca>

Sent: Thursday, July 29, 2021 10:48 AM

To: Beth Ryder <bRyder@trinityconsultants.com>

Cc: jack.carter@weyerhaeuser.com; Steve Nielsen <snilsen@novatechwp.com>

Subject: Woodbrite HCl content

I write to certify as stated during our teleconference this morning:

Woodbrite in fact contains a maximum of 0.75% w/w of chloride as HCl.

Woodbrite is typically used at a dilution of 1+200, thus any aerosols directed to the mist eliminator are expected to contain 0.0037 % w/w HCl.

The SDS currently quotes an exaggerated range selected from the original WHMIS suggested disclosure bands.

The purpose of disclosing so minor an ingredient is to assure disclosure for OS&H purposes (HCl is volatile) and HazMat incident purposes (under incident conditions, it would be inappropriate to fail to disclose even trace levels of HCl) in my opinion.

We will shortly reissue the SDS to indicate 1% HCl to more accurately guide SDS readers.

/tmm

Tom Miller, Managing Director

(604) 218-5132



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APPENDIX D. EMISSION CALCULATIONS

Table C-1. Operating Parameters

Parameter	Value	Units
Maximum lumber throughput	250,000,000	BF/yr
Maximum lumber throughput	65,000	BF/hr
Maximum daily operating hours	24	hr/day

Table C-2. Emission Calculations - VOC

Chemical	Application Rate ¹ (gal/BF)	VOC Content ² (lb/gal)	(lb/hr)	Maximum Emissions (lb/day)	(tpy)
Novastat P50 + Emulise XT + Defoamer D (0.6+4.4+0.15)	2.60E-05	0.058	0.10	2.35	0.19
Novastat P50 + Emulise XT (12+88)	5.12E-05	0.9236	3.07	73.71	5.91
Defoamer D	1.38E-07	0.601	0.01	0.13	0.01
Novastat IC-20	2.26E-06	6.977	1.02	24.59	1.97
WoodBrite CQ	9.70E-06	0	0.00	0.00	0.00
Total					8.08

¹ Application rate based on maximum actual usage at the Weyerhaeuser Longview, Santiam, and/or Cottage Grove sites.

² VOC content obtained from manufacturer SDSs.

Table C-3. Emission Calculations - HAPs and TAPs

Pollutant	CAS Number	HAP?	TAP?	Maximum Concentration ¹ (lb/gal)	Evaporation Rate (gal/hr)	(lb/hr)	Emissions ² (lbs/day)	(tpy)
Glycol ether	Proprietary-GE	Yes	No	1.90E-02	0.6	1.14E-02	0.27	0.05
Hydrochloric Acid	7647-01-0	Yes	Yes	2.74E-04	0.6	1.64E-04	3.94E-03	7.19E-04
Phosphoric Acid	7664-38-2	No	Yes	7.41E-03	0.6	4.44E-03	1.07E-01	0.02
Total HAP							0.05	

¹ Maximum concentrations are calculated using the chemical composition provided in manufacturer SDS and the mixture ratio of 1:200 Woodbrite CQ to water.

wt% Pollutant [(lbs/lb WoodBrite) * WoodBrite Density (lbs/gal) * 1 gal WoodBrite / 201 gal Solution

² Toxics Hourly Emissions (lb/hr) = Maximum Concentration (lb/gal) x Evaporation Rate (gal/hr)

Table C-4. Toxic Analysis

Pollutant	De Minimis (lb/avg. period)	SQER	Averaging Period	Emissions (lb/avg)	Below De Minimis?	Below SQER?	Modeling Required?
Hydrochloric Acid	0.033	0.67	24-hr	3.94E-03	Yes	Yes	No
Phosphoric Acid	0.026	0.52	24-hr	1.07E-01	No	Yes	No

¹ De minimis and SQER values obtained from WAC 173-460-150.

Table C-5. Chemical Compositions

Chemical	Density (lb/gal)	VOC Content (%)	CAS Number	Proprietary-GE						Propiconazole wt%										
				149-57-5	55406-53-6	68439-70-3	Proprietary-AA	34590-94-8	7647-01-0		68955-64-6	7664-38-2	60207-90-1							
Novastat P50 + Emulise XT + Defoamer D (0.6+4.4+0.15)	8.295	0.7		5																
Novastat P50 + Emulise XT (12+88)	7.5209	12.28		30																
Defoamer D	8.345	7.2																		
Novastat IC-20	8.721	80																		
WoodBrite CQ	7.64	0																		

¹ Using maximum weight percent identified in ranges.

² Density for WoodBrite obtained from manufacturer specifications in 7/30/2021 email in Appendix B.

Density (lbs/gal) = Density (0.9150 kg/L) * [3.78541 L/gal] * [2.2046 lbs/kg]

Table C-6. HAP/TAP Identification

Pollutants	CAS Number	HAP? ¹	TAP? ²
2-Ethylhexanoic acid	149-57-5	No	No
3-Iodo-2-propynyl butyl carbamate	55406-53-6	No	No
Alkyldimethylamines	68439-70-3	No	No
Aliphatic alcohol	Proprietary-AA	No	No
Dipropylene glycol monomethyl ether	34590-94-8	No	No
Glycol ether	Proprietary-GE	Yes	No
Hydrochloric acid	7647-01-0	Yes	Yes
Phosphonomehylated high-boiling fraction hydrogenated hexanedinitrile	68955-64-6	No	No
Phosphoric acid	7664-38-2	No	Yes
Propiconazole	60207-90-1	No	No

¹ Hazardous Air Pollutants (HAP) are determined based on the US EPA Clean Air Act.

² Toxic Air Pollutants (TAP) are determined based on WAC 173-460-150.