



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT

NEW SOURCE REVIEW PERMIT
TO CONSTRUCT AND OPERATE
A STATIONARY SOURCE

P-113

Issued pursuant to Title 22a of the Connecticut General Statutes and Section 22a-174-3a of the Regulations of Connecticut State Agencies.

Owner/Operator:	Sartomer Company, Inc.	TRANSFERRED TO: <u>Cray Valley USA, LLC</u> <u>125 Ontario St., Stratford, CT</u> ENGINEER: AMT DATE: 11/22/10
Address:	105 Ontario Street Stratford, CT 06615	
Equipment Location:	105 Ontario Street Stratford, CT 06615	
Equipment Description:	Reactor/Dryer #3	

Permit Number:	178-0113	TRANSFERRED TO: <u>Total Petrochemicals & Refining USA, Inc.</u> <u>105 Ontario St., Stratford, CT</u> ENGINEER: RH DATE: 8/15/16
Town/Premises Numbers:	178-0167	
Original Permit Issue Date:	6/27/2001	
Revision/Modification Issue Date:	4/1/02	
Expiration Date:	None	

Arthur J. Rocque, Jr.
Commissioner

4/1/02
Date

I CERTIFY THAT THIS IS A TRUE COPY OF THE ORIGINAL

4/1/02

ORIGINAL

PERMIT FOR PROCESS EQUIPMENT

**STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
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PART I. PROCESS DESCRIPTION**A. General Process Description**

Sartomer Company, Inc. produces metallic acrylates, mainly zinc acrylates in this batch reactor/dryer. Zinc oxide is combined with heptane under agitation. Acrylic or Methacrylic acid is then added to the vessel and the reaction occurs, water is a by-product of the reaction. The vessel is then heated to strip off the heptane and water. The heptane and water are condensed and collected in a receiving vessel. To complete the stripping process, a vacuum is drawn on the vessel. Water from the process is drained from the receiver and collected in a storage tank. The recovered heptane is recycled into future batches. The recovered water is reused for process equipment cleaning.

B. Equipment Design Specifications

Agitated Batch Reactor/Dryer #3 - 148 cu.ft.
Vacuum Pump #3 - 200 cfm

C. Control Equipment Specifications

Pollutant Controlled: VOC
Type Control: Primary Condenser
Make & Model No.: Pfaudler R391-1801
Condenser Area: 204 ft²
Type Control: Secondary Condenser
Make & Model No.: XCHANGER INC. TV-075-2
Condenser Area: 83 ft²
Coolant: Chilled Water
Coolant Inlet Temperature (°F): 40 °F (typical)
Gas Exit Temperature (°F): 50 °F (typical)
Minimum Overall Control Efficiency: 95%

D. Stack Parameters

Stack No.: 5 (Vacuum Discharge)
Discharge Height: 23 ft. 5 in.
Design Flow Rate: 200 acfm
Minimum Distance to Nearest Property Line: 70 ft

Stack No.: 6 (Rx Tank)
Discharge Height: 22 ft. 7 in.
Design Flow Rate: Working and breathing losses only

FIRM NAME: Sartomer Company, Inc.
EQUIPMENT LOCATION: 125 Ontario Street, Stratford, CT 06497
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Town No: 178

Premise No: 167

Permit No: 0113

Stack No: 05

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PART I. PROCESS DESCRIPTION, continued

Stack No.: 7 (Dryer)
 Discharge Height: 22 ft. 2 in.
 Design Flow Rate: Over pressurization venting only

PART II. OPERATING REQUIREMENTS

Notwithstanding the design specifications or description provided in Part I, above, the permittee of the subject source shall comply with the following operating requirements.

A. Operating Parameter Limitations

Maximum production rate: 18 Batches per day
 Allowable Operating Hours: 8760

B. O&M Requirements

The permittee shall operate, inspect, and maintain the control equipment in accordance with the manufacturer's specifications to achieve the removal efficiencies specified in this permit.

C. Emission Limits

1. Criteria Pollutants

The permittee shall not exceed the emission limits stated herein at any time.

<u>Equipment</u>	<u>Pollutant</u>	<u>8 hour Average lb/hr</u>	<u>TPY</u>
Reactor/Dryer#3	VOC	4.47	19.6

Demonstration of compliance with the above emission limits shall be met by calculating the emission rates using proprietary emission factors.

2. Hazardous Air Pollutants (HAPs)

See Part IV.D.

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PART III. STACK EMISSION TEST REQUIREMENTS (see Appendix B for General Requirements if applicable)

Stack emission/performance testing shall be required for the following:

- None at this time
- TSP
- SOx
- CO
- Pb
- PM-10
- NOx
- VOC
- Other (HAPs): _____

PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS

A. Monitoring Requirements

1. The permittee shall operate continuous monitoring and record keeping systems which continuously measures and records the inlet cooling temperature on the chilled water system and the outlet gas temperature on the secondary condenser. The permittee shall calibrate the thermocouple annually and it shall have an accuracy of $\pm 1\%$ of the temperature being recorded.
2. The permittee shall keep calibration and maintenance records and alarm printouts for all continuous monitoring instruments and equipment.

B. Material Usage Records

1. The permittee shall keep records of all solvents used in the facility on a monthly and consecutive twelve (12) month basis. The permittee shall use engineering calculations to assign the usage to each batch production line. Records shall contain the following information:
 - a. Description of each material used, including:
 - i. material name;
 - ii. material density (lb/gallon);
 - iii. volatile organic compound (VOC) content by weight (lb VOC/gal); and,
 - iv. Material Safety Data Sheet (MSDS) or the manufacturer's formulation data sheet.
 - b. Quantity material used (lbs and/or gallons).

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PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS, cont.

2. The permittee shall keep a record of the monthly and consecutive twelve (12) month VOC emissions. The consecutive 12 month VOC emissions shall be determined by adding the current month's emissions to that of the previous eleven (11) months. The permittee shall make these calculations within 30 days of the previous month.
3. The permittee shall keep detailed operating and maintenance records for the control equipment, including time of operation, the date removed from service, the cause for removal from service, the date and description of each service performed, the date put back into service and the date of thermocouple calibration or replacement.

C. Record Keeping Period

The permittee shall keep all records required by this permit on premises for a period of no less than five (5) years and shall submit such records to the Commissioner upon request.

D. Hazardous Air Pollutants (HAPs) MASC

Materials used in this process, now or in the future, either for production or on a trial basis, which contain hazardous air pollutants (HAPs) that are regulated under Section 22a-174-29 of the Regulations of Connecticut State Agencies (hereinafter referred to as RCSA) are allowed provided that:

1. the permittee can demonstrate that the HAPs actual stack concentration (ASC) does not exceed the maximum allowable stack concentration (MASC) using the following equation,

$$\text{MASC} = 1129.58 \times \text{HLV}$$

where: MASC = Maximum Allowable Stack Concentration (ug/m³)
HLV = Hazard Limiting Value (ug/m³)

The MASC is derived using the HAPs corresponding HLV as listed in RCSA Section 22a-174-29 and is based on the stack parameters given in Part I.D. of this permit.

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PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS, cont.

The ASC is derived using the HAPs content in the material as applied (lb HAP/gal), the maximum application rate (gal/hr) as a worst case, and any applicable controls. This gives the actual stack emissions in lb/hr which can be converted to a concentration in ug/m³;

2. the change does not otherwise constitute a modification, as defined in RCSA Section 22a-174-1;
3. the permittee keeps records of all materials used, and MSDS's or technical data sheets; and,
4. the permittee submits a report of any changes and a demonstration of compliance with permit limits, within thirty (30) days of such changes, to the Department of Environmental Protection, Bureau of Air Management; Permit Section, 79 Elm Street, 5th Floor; Hartford, CT 06106-5127

NOTE: The emissions from any new materials, for production or trial runs, shall be counted toward any applicable emission limit in this permit.

PART V. PREMISES REQUIREMENTS

- A. The permittee shall not cause or permit the emission of any substance or combination of substances which creates or contributes to an odor beyond the property boundary of the premise that constitutes a nuisance as set forth in RCSA Section 22a-174-23.
- B. The permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations under RCSA Section 22a-69-1 through 22a-69-7.4, inclusive.
- C. The permittee shall continuously cover all open drums and vessels when not in use that contain solvents, cleaners, coatings, or cleaning rags so as to minimize the amounts of VOCs emitted to the atmosphere.

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PART VI. ADDITIONAL TERMS AND CONDITIONS

- A. This permit does not relieve the permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the permittee of other obligations under applicable federal, state and local law.
- B. Any representative of the DEP may enter the permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.
- C. This permit may be revoked, suspended, modified or transferred in accordance with applicable law.
- D. This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons of municipalities who are not parties to this permit.
- E. Any document, including any notice, which is required to be submitted to the Commissioner under this permit shall be signed by a duly authorized representative of the permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in the documents and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense." Any false statement in any information submitted pursuant to this permit may be punishable as a criminal offense in accordance with Connecticut General Statutes §22a-6, under §53a-157 of the Connecticut General Statutes.

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PART VI. ADDITIONAL TERMS AND CONDITIONS, cont.

- F. Nothing in this permit shall affect the Commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the permittee by the Commissioner.
- G. Within fifteen days of the date the permittee becomes aware of a change in any information submitted to the Commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the permittee shall submit the correct or omitted information to the Commissioner.
- H. The date of submission to the Commissioner of any document required by this permit shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.
- I. Any document required to be submitted to the Commissioner under this permit shall, unless otherwise specified in writing by the Commissioner, be directed to: Office of Assistant Director; Compliance & Field Operations Division; Bureau of Air Management; Department of Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

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