

**VILLAGE OF DOWNERS GROVE**  
**REPORT FOR THE VILLAGE COUNCIL MEETING**  
**JULY 20, 2010 AGENDA**

SUBJECT:	TYPE:	SUBMITTED BY:
Solar Heating System	Resolution Ordinance ✓ Motion Discussion Only	Judy Buttny Finance Director

**SYNOPSIS**

A motion is requested to authorize the award of a contract to Rural Renewable Energy Alliance of Pine River, Minnesota for the purchase of 62 solar air heat collectors and supplies for use at Public Works, Fleet and six pumping stations.

**STRATEGIC PLAN ALIGNMENT**

The Five Year Plan and Goals identifies *Top Quality Village Infrastructure and Facilities* and *Steward of Environmental Sustainability*.

**FISCAL IMPACT**

The Village was awarded a grant in the amount of \$232,100 which includes funding for the purchase of these solar air heat collectors. This grant covers the full cost of the materials and Village staff labor to install them.

**RECOMMENDATION**

Approval on the July 20, 2010 consent agenda.

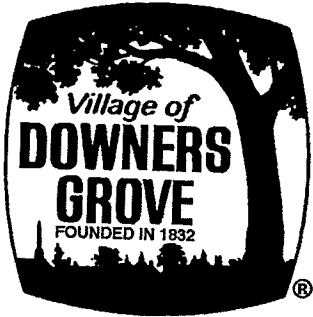
**BACKGROUND**

In 2009, the Village applied for and received a grant from the Department of Energy to retrofit several of its municipal buildings with solar furnaces to reduce costs. An energy audit showed the Villages' Public Works building, Fleet Services building and six of its pumping stations would be appropriate candidates for solar panel installation; given a significant portion of each of these buildings have a southerly exposure. The solar furnace system will be a turn key solar heating and ventilation solution. The system works by providing fresh solar air ventilation to an integrated Heat Recovery Ventilation (HRV) inside the solar hydronics furnace. This project will improve energy efficiency by reducing the amount of gas or electricity used in heating these municipal buildings. The solar air heat collectors are expected to generate a savings of up to ten percent of the heating of these facilities.

The supply of solar air heat collectors and supplies was competitively bid on June 17, 2010. The bid opening was June 30, 2010 and Rural Renewable Energy Alliance was the only bidder due to specifications provided in the bid. Their bid for the solar air heat collectors and required supplies was \$112,831.

**ATTACHMENTS**

Bid Documents



## CALL FOR BIDS

I Name of Company Bidding: RURAL RENEWABLE ENERGY ALLIANCE

II. Instructions and Specifications:

A. Bid No.: CFB-0-22-2010/TT

B. For: SOLAR HEATING SYSTEM

C. Bid Opening Date/Time: June 30, 2010, 10:00 a.m.

D. Pre-Bid Conference Date/Time: N/A

III. Required of All Bidders:

A. Bid Deposit:

B. Letter of Capability of Acquiring Performance Bond: **NO**

IV. Required of Awarded Contractor(s)

A. Performance Bond or Letter of Credit: **NO**

B. Certificate of Insurance: **Required**

Legal Advertisement Published: June 17, 2010

Date Issued: June 17, 2010

This document comprises 37 pages

Return **original** and **two duplicate copies** of proposal in a **sealed envelope** marked with the Proposal Number as noted above to:

THERESA H. TARKA  
PURCHASING ASSISTANT  
VILLAGE OF DOWNERS GROVE  
801 BURLINGTON AVENUE  
DOWNERS GROVE, IL 60515  
PHONE: 630/434-5530  
FAX: 630/434-5571  
[www.downers.us](http://www.downers.us)

Village of Downers Grove

**CALL FOR BIDS**

**Bid No.: CFB-0-22-2010/TT**

The VILLAGE OF DOWNERS GROVE will receive bids Monday thru Friday, 8:00 A.M. to 5:00 P.M. at the Village Hall, 801 Burlington Avenue, Downers Grove, IL 60515.

**SPECIFICATIONS MUST BE MET AT THE TIME THE BID IS DUE.**

The Village Council reserves the right to accept or reject any and all bids, to waive technicalities and to accept or reject any item of any Bid.

The documents constituting component parts of this contract are the following:

- I. CALL FOR BIDS
- II. TERMS & CONDITIONS
- III. DETAILED SPECIFICATIONS
- IV. BID/CONTRACT FORM

**DO NOT DETACH ANY PORTION OF THIS DOCUMENT. INVALIDATION COULD RESULT.** Bidders MUST submit an original, and two (2) paper copies of the total Bid. Upon formal award of the Bid, the successful Bidder will receive a copy of the executed contract.

## **I. CALL FOR BIDS**

### **1. GENERAL**

- 1.1 Notice is hereby given that Village of Downers Grove will receive sealed bids up to **June 30, 2010, 10:00 a.m.** .
- 1.2 Bids must be received at the Village of Downers Grove by the time and date specified. Bids received after the specified time and date will not be accepted and will be returned unopened to the Bidder.
- 1.3 Bid forms shall be sent to the Village of Downers Grove, ATTN: Theresa Tarka, in a sealed envelope marked "SEALED BID". The envelope shall be marked with the name of the project, date, and time set for receipt of Bids.
- 1.4 All bids must be submitted on the forms supplied by the Village and signed by a proper official of the company submitting bid. Telephone, email and fax bids will not be accepted.
- 1.5 By submitting this bid, the bidder certifies under penalty of perjury that he has not acted in collusion with any other bidder or potential bidder.

### **2. PREPARATION OF BID**

- 2.1 It is the responsibility of the bidder to carefully examine the specifications and bid documents and to be familiar with all of the requirements, stipulations, provisions, and conditions surrounding the proposed services.
- 2.2 No oral or telephone interpretations of specifications shall be binding upon the Village. All requests for interpretations or clarifications shall be made in writing and received by the Village at least five (5) business days prior to the date set for receipt of bids. The Village shall make all changes or interpretations of the specifications in a written addendum and shall provide an addendum to any bidder of record. Any and all changes to the specifications/plans are valid only if they are included by written addendum to all bidders. Each bidder must acknowledge receipt of any addenda by indicating on the Bid Proposal page. Each bidder, by acknowledging receipt of any addenda, is responsible for the contents of the addenda and any changes to the bid therein. Failure to acknowledge any addenda may cause the bid to be rejected. The Village will not assume responsibility for receipt of any addenda. In all cases, it will be the bidder's responsibility to obtain all addenda issued. Bidders will provide written acknowledgement of receipt of each addendum issued with the bid submission.
- 2.3 In case of error in the extension of prices in the bid, the hourly rate or unit price will

govern. In case of discrepancy in the price between the written and numerical amounts, the written amount will govern.

- 2.4 All costs incurred in the preparation, submission, and/or presentation of any bid including any bidder's travel or personal expenses shall be the sole responsibility of the bidder and will not be reimbursed by the Village.
- 2.5 The bidder hereby affirms and states that the prices quoted herein constitute the total cost to the Village for all work involved in the respective items and that this cost also includes all insurance, royalties, transportation charges, use of all tools and equipment, superintendence, overhead expense, all profits and all other work, services and conditions necessarily involved in the work to be done and materials to be furnished in accordance with the requirements of the Contract Documents considered severally and collectively.

**3. PRE-BID CONFERENCE**

- 3.1 A pre-bid conference may be offered to provide additional information, inspection or review of current facilities or equipment, and to provide an open forum for questions from bidders. This pre-bid conference is not mandatory (unless stated "Required" on the cover of this document), but attendance by bidders is strongly advised as this will be the last opportunity to ask questions concerning the bid.
- 3.2 For those unable to attend the meeting, questions may be posed in writing to the Village (faxed and emailed questions are acceptable), but must be received by the Village prior to the scheduled time for the pre-bid conference. Questions received will be considered at the conference. An addendum may be issued as a result of the pre-bid conference. Such an addendum is subject to the provisions for issuance of an addendum as set forth in the section titled "Addenda".

**4. SUBMISSION OF BID**

- 4.1 In all cases, an original and duplicate copy of the sealed bids marked as indicated in Section 1 shall be directed to the Purchasing Department.
- 4.2 A bid deposit may be required, the amount of which shall be fixed by the Purchasing Manager but which shall not exceed ten percent (10%) of the estimated cost of the work or material to be furnished, nor be less than the sum of twenty-five dollars (\$25.00). Such bid deposit shall be in the form of a certified check, cash or money order. Checks shall be drawn upon a bank of good standing payable to the order of the Village and said deposit shall be forfeited to the Village in the event the bidder shall neglect or refuse to enter into a contract and bond when required, with approved sureties, to execute the work or furnish the material for the price mentioned in his/her bid and according to the plans and specifications in case the contract shall be awarded to him/her. Bids shall be opened at the hour and place mentioned in the notice.

**5. MODIFICATION OR WITHDRAWAL OF BID**

5.1 A bid that is in the possession of the Village may be altered by a letter bearing the signature or name of person authorized for submitting a bid, provided that it is received prior to the time and date set for the bid opening. Telephone, email or verbal alterations of a bid will not be accepted.

5.2 A bid that is in the possession of the Village may be withdrawn by the bidder, up to the time set for the bid opening, by a letter bearing the signature or name of person authorized for submitting bids. Bids may not be withdrawn after the bid opening and shall remain valid for a period of ninety (90) calendar days from the date set for the bid opening, unless otherwise specified.

5.3 Any bidder who does not submit a proposal is requested to return the enclosed Statement of "No Bid" postcard. Bidders not submitting proposals or "No Bid Statement" may otherwise be removed from our bid mailing list.

**6. REJECTION OF BIDS**

6.1 Bids that contain omissions, erasures, alterations, additions not called for, conditional bids or alternate bids not called for or irregularities of any kind shall be rejected as informal or insufficient bids otherwise acceptable which are not accompanied by the proper bid deposit and/or security shall also be rejected as informal or insufficient. The Village reserves the right to reject any or all bids and to waive technical errors as may be deemed best for the interest of the Village.

**7. COMPETENCY OF BIDDER**

7.1 No proposal will be accepted from or contract awarded to any person, firm or corporation that is in arrears or is in default upon any debt or contract. The bidder, if requested, must present evidence to the Purchasing Assistant of ability and possession of necessary facilities, and financial resources to comply with the terms of the attached specifications and proposals. Evidence must be presented within three (3) business days.

**8. DISQUALIFICATION OF BIDDERS**

8.1 Any one or more of the following causes may be considered as sufficient for the disqualification of a Bidder and the rejection of their Bid.

8.1.1 More than one Bid for the same Work from an individual, firm partnership, or corporation under the same or different names.

8.1.2 Evidence of collusion among Bidders.

- 8.1.3 Unbalanced Proposals in which the prices for some items are substantially out of proportion to the prices for other items.
- 8.1.4 Failure to submit a unit price for each item of Work listed in the Bid Form.
- 8.1.5 Lack of competency as revealed by financial statement or experience questionnaire.
- 8.1.6 Unsatisfactory performance record as shown by past work, judged from the standpoint of workmanship and progress.
- 8.1.7 Uncompleted work which, in the judgment of the Village, might hinder or prevent the prompt completion of this Work.
- 8.1.8 Failure to submit a signed Bidder's Certificate stating the following:
  - 8.1.8.1 That the Bidder is not barred from bidding on this Contract as a result of a violation of Sections 720 ILCS 5/33-E3 and 720 ILCS 5/33-E4 of the Illinois Compiled Statutes; and
  - 8.1.8.2 The Bidder is not delinquent in the payment of any tax administered by the Illinois Department of Revenue and;
  - 8.1.8.3 The Bidder will maintain the types and levels of insurance required by the terms of this contract.

**9. BASIS OF AWARD**

- 9.1 The Village reserves the right to accept or reject any and all bids or to waive technicalities, or to accept or reject any item of any proposal unless the bidder includes a restrictive limitation.
- 9.2 The Village may award the contract on individual items within a particular group or upon the total group of items.

**10. AWARD OF CONTRACT**

- 10.1 The contract will be awarded to that responsible bidder whose bid, conforming to the invitation for bids, will be most advantageous to the Village, price and other factors considered. (lowest responsible bidder)

**11. RETURN OF BID DEPOSIT**

- 11.1 The bid deposit of all except the three (3) lowest responsive bidders on each contract will be returned within fifteen (15) calendar days after the opening of bids. The remaining bid deposits of each contract will be returned within fifteen (15) days after the Village Council

has awarded the contract and the required appurtenances to the contract have been received.

**12. FAILURE TO ENTER INTO CONTRACT**

12.1 By submitting a bid, the bidder understands and agrees that, if his proposal is accepted, and he fails to enter into a contract forthwith, he shall be liable to the Village for any damages the Village may thereby suffer.

**13. SECURITY FOR PERFORMANCE**

13.1 The awarded contractor, within thirteen (13) calendar days after acceptance of the bidder's proposal by the Village, shall furnish security for performance acceptable to the Village when required under the documents. Such security shall be either a satisfactory performance bond (bonding company must be licensed to do business in Illinois) or a letter of credit on the form provided by the Village and available from the Village's Purchasing Manager. Said bonds shall guarantee the Bidder's performance under the Contract Documents and shall guarantee payment of all subcontractors and material suppliers. Any bond shall include a provision as will guarantee faithful performance of the Illinois Prevailing Wage Act, 820 ILCS 130/1 et seq. **NOTE: As evidence of capability to provide such security for performance, each bidder shall submit with the bid proposal either a letter executed by its surety company indicating the bidder's performance bonding capability, or a letter from a bank or savings and loan within twenty-five miles of the corporate boundaries of the Village indicating its willingness and intent to provide a letter of credit for the bidder.**

**14. TAX EXEMPTION**

14.1 The Village is exempt from Illinois sales or use tax for direct purchases of materials and supplies. A copy of the Illinois Sales Tax Exemption Form will be issued upon request. Our federal identification number will also be provided to the selected vendor.

**15. RESERVED RIGHTS**

15.1 The Village of Downers Grove reserves the right to waive irregularities and informalities, sections to this contract and to accept any bid and to reject any and all bids and to disapprove of any and all subcontractors as may be in the best interest of the Village. Time and date requirements for receipt of bid, however, will not be waived.

**16. CATALOGS**

16.1 Each bidder shall submit catalogs, descriptive literature, and detailed drawings, where applicable, to fully illustrate and describe the material and/or work he proposes to furnish.

**17. TRADE NAMES/SUBSTITUTIONS**

17.1 Certain materials and equipment are specified by a manufacturer or trade name to establish standards or quality and performance and not for the purpose of limiting competition. Bidders are invited to submit bids not only on named items but also on



items that they propose for substitution of named items. Products of other manufacturers may be substituted, if, in the opinion of the Village, they are equal to those specified in quality, performance, design, and suitability for intended use. If the bidder proposes to furnish an "equal", the proposed "equal" item must be so indicated in the written bid. Where two or more items are specified, the selection among those specified is the Contractor's option, or he may submit his bid on all such items. Detail specification sheets shall be provided by bidder for all substituted items.

## **II. TERMS AND CONDITIONS**

### **18. VILLAGE ORDINANCES**

18.1 The successful bidder will strictly comply with all ordinances of the Village of Downers Grove and laws of the State of Illinois.

### **19. USE OF VILLAGE'S NAME**

19.1 The bidder is specifically denied the right of using in any form or medium the name of the Village for public advertising unless the Village grants express permission.

### **20. INSPECTION**

20.1 The Village shall have a right to inspect, by its authorized representative, any material, components or workmanship as herein specified. Materials, components or workmanship that have been rejected by the Purchasing Manager as not in accordance with the terms of the contract specifications shall be replaced by the Awarded Contractor at no cost to the Village.

### **21. DELIVERIES**

21.1 All materials shipped to the Village of Downers Grove must be shipped F.O.B. designated location, Downers Grove, Illinois.

### **22. SPECIAL HANDLING**

22.1 Prior to delivery of any product that is caustic, corrosive, flammable or dangerous to handle, the bidder will provide written directions as to methods of handling such products, as well as the antidote or neutralizing material required for its first aid before delivery. bidder shall also notify the Village and provide material safety data sheets for all substances used in connection with this contract which are defined as toxic under the Illinois Toxic Substances Disclosure to Employees Act.

### **23. COMPLIANCE WITH OSHA STANDARDS**

23.1 Equipment supplied to the Village must comply with all requirements and standards as specified by the Occupational Safety and Health Act. All guards and protectors as well as appropriate markings will be in place before delivery. Items not meeting any OSHA specifications will be refused.

**24. CERCLA INDEMNIFICATION**

24.1 The Awarded Bidder shall, to the maximum extent permitted by law, indemnify, defend, and hold harmless the Village, its officers, employees, agents, and attorneys from and against any and all liability, including without limitation, costs of response, removal, remediation, investigation, property damage, personal injury, damage to natural resources, health assessments, health settlements, attorneys' fees, and other related transaction costs arising under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 U.S.C.A. Sec. 9601, et seq., as amended, and all other applicable statutes, regulations, ordinances, and under common law for any release or threatened release of the waste material collected by the Awarded Bidder, both before and after its disposal.

**25. BUY AMERICA**

25.1 The Contractor agrees to comply with 49 U.S.C.5323(j), the Federal Transportation Administration's (FTA) Buy America regulations at 49 C.F.R. Part 661, and any amendments thereto, and any implementing guidance issued by the FTA, with respect to this contract, when financed by Federal funds (through a grant agreement or cooperative agreement).

25.2 As a condition of responsiveness, the Contractor agrees to submit with its Bid submission, an executed Buy America Certificate, attached hereto.

**26. CAMPAIGN DISCLOSURE**

26.1 Any contractor, proposer, bidder or vendor who responds by submitting a bid or proposal to the Village of Downers Grove shall be required to submit with its bid submission, an executed Campaign Disclosure Certificate, attached hereto.

26.2 The Campaign Disclosure Certificate is required pursuant to the Village of Downers Grove Council Policy on Ethical Standards and is applicable to those campaign contributions made to any member of the Village Council.

26.3 Said Campaign Disclosure Certificate requires any individual or entity bidding to disclose campaign contributions, as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4), made to current members of the Village Council within the five (5) year period preceding the date of the bid or proposal release.

26.4 By signing the bid documents, contractor/proposer/bidder/vendor agrees to refrain from making any campaign contributions as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4) to any Village Council member and any challengers seeking to serve as a member of the Downers Grove Village Council.

**27. BACKING PRECAUTIONS**

27.1 Pursuant to Sections 14-139(b) and 14-171.1 of the Downers Grove Municipal Code, any motor vehicle which has an obstructed view to the rear and is to be operated at any time in reverse gear on the public streets of the Village of Downers Grove by the Awarded Contractor or any subcontractor shall either be equipped with a reverse signal alarm (backup alarm) audible above and distinguishable from the surrounding noise level, or shall provide an observer to signal that it is safe to back up.

**28. OVERWEIGHT, OVERWIDTH AND OVERHEIGHT PERMITS**

28.1 The Village has and supports an overweight truck enforcement program. Contractors are required to comply with weight requirements and safety requirements as established by Illinois Law or Village Ordinance, for vehicles, vehicle operators and specialty equipment. In some instances, specialty equipment for road repairs or construction projects requires the movement of overweight, overwidth, or overheight loads utilizing a Village of Downers Grove roadway. Such movement will require obtaining a permit and permission from the Downers Grove Police Department.

**29. COPYRIGHT/PATENT INFRINGEMENT**

29.1 The bidder agrees to indemnify, defend, and hold harmless the Village against any suit, claim, or proceeding brought against the Village for alleged use of any equipment, systems, or services provided by the Bidder that constitutes a misuse of any proprietary or trade secret information or an infringement of any patent or copyright.

**30. INDEMNITY AND HOLD HARMLESS AGREEMENT**

30.1 To the fullest extent permitted by law, the bidder shall indemnify, keep and save harmless the Village and its agents, officers, and employees, against all injuries, deaths, strikes, losses, damages, claims, suits, liabilities, judgments, costs and expenses, which may arise directly or indirectly from any negligence or from the reckless or willful misconduct of the bidder, its employees, or its subcontractors, and the bidder, its employees, or its subcontractors, and the bidder shall at its own expense, appear, defend and pay all charges of attorneys and all costs and other expenses arising therefrom or incurred in connection therewith, and, if any judgment shall be rendered against the Village in any such action, the bidder shall, at its own expense, satisfy and discharge the same. This Agreement shall not be construed as requiring the Bidder to indemnify the Village for its own negligence. The bidder shall indemnify, keep and save harmless the Village only where a loss was caused by the negligent, willful or reckless acts or omissions of the bidder, its employees, or its Subcontractors.

**31. NONDISCRIMINATION**

31.1 Bidder shall, as a party to a public contract:

- (a) Refrain from unlawful discrimination in employment and undertake affirmative action to assure equality of employment opportunity and eliminate the effects of

past discrimination;

- (b) By submission of this bid, the bidder certifies that he is an "equal opportunity employer" as defined by Section 2000(e) of Chapter 21, Title 42, U.S. Code Annotated and Executive Orders #11246 and #11375, which are incorporated herein by reference. The Equal Opportunity clause, Section 6.1 of the Rules and Regulations of the Department of Human Rights of the State of Illinois, is a material part of any contract awarded on the basis of this bid.
- (c) It is unlawful to discriminate on the basis of race, color, sex, national origin, ancestry, age, marital status, physical or mental handicap or unfavorable discharge for military service. Bidder shall comply with standards set forth in Title VII of the Civil Rights Act of 1964, 42 U.S.C. Secs. 2000 et seq., The Human Rights Act of the State of Illinois, 68 ILL. Rev. Stat. Secs. 1-101 et seq., and The Americans With Disabilities Act, 42 U.S.C. Secs. 12101 et. seq.

**32. SEXUAL HARASSMENT POLICY**

32.1 The bidder or supplier, as a party to a public contract, shall have a written sexual harassment policy that:

- 32.1.1 Notes the illegality of sexual harassment;
- 32.1.2 Sets forth the State law definition of sexual harassment;
- 32.1.3 Describes sexual harassment utilizing examples;
- 32.1.4 Describes the bidder's internal complaint process including penalties;
- 32.1.5 Describes the legal recourse, investigative and complaint process available through the Illinois Department of Human Rights and the Human Rights Commission and how to contact these entities; and
- 32.1.6 Describes the protection against retaliation afforded under the Illinois Human Rights Act.

**33. EQUAL EMPLOYMENT OPPORTUNITY**

33.1 In the event of the bidder's non-compliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the Rules and Regulations of the Illinois Department of Human Rights ("Department"), the bidder may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be canceled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation. During the performance of this contract, the bidder agrees as follows:

33.2 That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or

mental handicap unrelated to ability, sexual orientation, sexual identity, or an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.

- 33.3 That, if it hires additional employees in order to perform this contract or any portion thereof, it will determine the availability (in accordance with the Department's Rules and Regulations) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
- 33.4 That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental handicap unrelated to ability, or an unfavorable discharge from military services.
- 33.5 That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the bidder's obligations under the Illinois Human Rights Act and the Department's Rules and Regulations. If any such labor organization or representative fails or refuses to cooperate with the bidder in its efforts to comply with such Act and Rules and Regulations, the bidder will promptly so notify the Department and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.
- 33.6 That it will submit reports as required by the Department's Rules and Regulations, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations.
- 33.7 That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Department for purpose of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.
- 33.8 That it will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so that such provisions will be binding upon such subcontractor. In the same manner as with other provisions of this contract, the bidder will be liable for compliance with applicable provisions of this clause by such subcontractors; and further it will promptly notify the contracting agency and the Department in the event any subcontractor fails or refuses to comply therewith. In

addition, the bidder will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivision or municipal corporations.

**34. DRUG FREE WORK PLACE**

Bidder, as a party to a public contract, certifies and agrees that it will provide a drug free workplace by:

- 34.1 Publishing a statement: (1) Notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance, including cannabis, is prohibited in the Village's or bidder's workplace. (2) Specifying the actions that will be taken against employees for violations of such prohibition. (3) Notifying the employee that, as a condition of employment on such contract or grant, the employee will: (A) abide by the terms of the statement; and (B) notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.
- 34.2 Establishing a drug free awareness program to inform employee's about: (1) the dangers of drug abuse in the workplace; (2) the Village's or bidder's policy of maintaining a drug free workplace; (3) any available drug counseling, rehabilitation and employee assistance programs; (4) the penalties that may be imposed upon employees for drug violations.
- 34.3 Providing a copy of the statement required by subparagraph .1 above to each employee engaged in the performance of the contract or grant and to post the statement in a prominent place in the workplace.
- 34.4 Notifying the contracting or granting agency within ten (10) days after receiving notice under part (3)(B) of subparagraph .1 above from an employee or otherwise receiving actual notice of such conviction.
- 34.5 Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program by any employee who is so convicted as required by section 5 of the Drug Free Workplace Act.
- 34.6 Assisting employees in selecting a course of action in the event drug counseling, treatment and rehabilitation is required and indicating that a trained referral team is in place.
- 34.7 Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act.

**35. SUBSTANCE ABUSE PREVENTION ON PUBLIC WORKS PROJECTS ACT**

35.1 In the event this is a public works project as defined under the Prevailing Wage Act, 820 ILCS 130/2, Bidder agrees to comply with the Substance Abuse Prevention on Public Works Projects Act , 820 ILCS 265/1 *et seq* ,and further agrees that all of its subcontractors shall comply with such Act.. As required by the Act, Bidder agrees that it will file with the Village prior to commencing work its written substance abuse prevention program and/or that of its subcontractor(s) which meet or exceed the requirements of the Act.

**36. PREVAILING WAGE ACT**

36.1 Bidder agrees to comply with the Illinois Prevailing Wage Act, 820 ILCS 130/1 *et seq.*, for all work completed under this contract. Bidder agrees to pay the prevailing wage and require that all of its subcontractors pay prevailing wage to any laborers, workers or mechanics who perform work pursuant to this contract or related subcontract. For applicable rates, go to the State of Illinois – Department of Labor website and use the most current DuPage County rate.

36.2 Bidder and each subcontractor shall keep or cause to be kept an accurate record of names, occupations and actual wages paid to each laborer, workman and mechanic employed by the bidder in connection with the contract. This record shall be open to inspection at all reasonable hours by any representative of the Village or the Illinois Department of Labor and must be preserved for four (4) years following completion of the contract.

36.3 In the event this is a contract for a public works project, as defined in 820 ILCS 130/2, bidder agrees to post at the job site in an easily accessible place, the prevailing wages for each craft or type of worker or mechanic needed to execute the contract or work to be performed.

36.4 In the event this is a public works project as defined under the Prevailing Wage Act, 820 ILCS 130/2, any and all contractors and subcontractors must submit certified payroll records to the Village on a monthly basis. **WITHOUT THIS PAPERWORK, NO INVOICE SHALL BE PAID BY THE VILLAGE.** Contractors and subcontractors must also submit a statement affirming that the records are true and accurate, that the wages paid to each worker are not less than the prevailing rate, and that the contractor and subcontractor are aware that filing false records is a Class B misdemeanor. The records must include the name, address, telephone number, social security number, job classification, hours of work, hourly rate, and start and end time of work each day for every worker employed on the public work. The Village reserves the right to check the pay stubs of the workers on the job. The Village further cautions that payment for any services rendered pursuant to this contract may be predicated upon receipt of said records.

36.5 In the event that this is a construction project where Motor Fuel tax monies or state grant

monies are used in the construction, maintenance and extension of municipal streets, traffic control signals, street lighting systems, storm sewers, pedestrian subways or overhead crossings, sidewalks and off-street parking facilities, and the like, the Village will require an Apprenticeship and Training Certification, attached after the Bidder's Certification.

36.6 Any bond furnished as security for performance shall include a provision as will guarantee faithful performance of the Illinois Prevailing Wage Act, 820 ILCS 130/1 et seq.

**37. PATRIOT ACT COMPLIANCE**

The bidder represents and warrants to the Village that neither it nor any of its principals, shareholders, members, partners, or affiliates, as applicable, is a person or entity named as a Specially Designated National and Blocked Person (as defined in Presidential Executive Order 13224) and that it is not acting, directly or indirectly, for or on behalf of a Specially Designated National and Blocked Person. The bidder further represents and warrants to the Village that the bidder and its principals, shareholders, members, partners, or affiliates, as applicable are not, directly or indirectly, engaged in, and are not facilitating, the transactions contemplated by this Agreement on behalf of any person or entity named as a Specially Designated National and Blocked Person. The bidder hereby agrees to defend, indemnify and hold harmless the Village, and its elected or appointed officers, employees, agents, representatives, engineers and attorneys, from and against any and all claims, damages, losses, risks, liabilities and expenses (including reasonable attorney's fees and costs) arising from or related to any breach of the foregoing representations and warranties.

**38. INSURANCE REQUIREMENTS**

38.1 Prior to starting the work, Contractor and any Subcontractors shall procure, maintain and pay for such insurance as will protect against claims for bodily injury or death, or for damage to property, including loss of use, which may arise out of operations by the Contractor or Subcontractor or any Sub-Sub Contractor or by anyone employed by any of them, or by anyone for whose acts any of them may be liable. Such insurance shall not be less than the greater of coverages and limits of liability specified below or any coverages and limits of liability specified in the Contract Documents or coverages and limits required by law unless otherwise agreed to by the Village.

Workers Compensation	\$500,000	Statutory
Employers Liability	\$1,000,000	Each Accident
	\$1,000,000	Disease Policy Limit
	\$1,000,000	Disease Each Employee



Village of Downers Grove

Comprehensive General Liability	\$2,000,000	Each Occurrence
	\$2,000,000	Aggregate
		<i>(Applicable on a Per Project Basis)</i>
Commercial Automobile Liability	\$1,000,000	Each Accident
Professional Errors & Omissions	\$2,000,000	Each Claim
(pursuant to section .9 below)	\$2,000,000	Annual Aggregate
Umbrella Liability	\$ 5,000,000	

- 38.2 Commercial General Liability Insurance required under this paragraph shall be written on an occurrence form and shall include coverage for Products/Completed Operations, Personal Injury with Employment Exclusion (if any) deleted, Blanket XCU and Blanket Contractual Liability insurance applicable to defense and indemnity obligations and other contractual indemnity assumed under the Contract Documents. The limit must be on a "Per Project Basis"
- 38.3 Comprehensive Automobile Liability Insurance required under this paragraph shall include coverage for all owned, hired and non-owned automobiles.
- 38.4 Workers Compensation coverage shall include a waiver of subrogation against the Village of Downers Grove.
- 38.5 Comprehensive General Liability, Employers Liability and Commercial Automobile Liability Insurance may be arranged under single policies for full minimum limits required, or by a combination of underlying policies with the balance provided by Umbrella and/or Excess Liability policies.
- 38.6 Contractor and all Subcontractors shall have their respective Comprehensive General Liability (including products/completed operations coverage), Employers Liability, Commercial Automobile Liability, and Umbrella/Excess Liability policies endorsed to add the "Village of Downers, its officers, officials, employees and volunteers" as "additional insureds" with respect to liability arising out of operations performed; claims for bodily injury or death brought against Village of Downers Grove by any Contractor of Subcontractor employees, or the employees of Subcontractor's subcontractors of any tier, however caused, related to the performance of operations under the Contract Documents. Such insurance afforded to the Village of Downers Grove shall be endorsed to provide

that the insurance provided under each policy shall be *Primary and Non-Contributory*.

- 38.7 Contractor and all Subcontractors shall maintain in effect all insurance coverages required by the Contract Documents at their sole expense and with insurance carriers licensed to do business in the State of Illinois and having a current A. M. Best rating of no less than A- VIII. In the event that the Contractor or any Subcontractor fails to procure or maintain any insured required by the Contract Documents, the Village of Downers Grove may, at its option, purchase such coverage and deduct the cost thereof from any monies due to the Contractor or Subcontractor, or withhold funds in an amount sufficient to protect the Village of Downers Grove, or terminate this Agreement pursuant to its terms.
- 38.8 All insurance policies shall contain a provision that coverages and limits afforded hereunder shall not be canceled, materially changed, non-renewed or restrictive modifications added, without thirty (30) days prior written notice to the Village of Downers Grove. Renewal certificates shall be provided to the Village of Downers Grove not less than five (5) prior to the expiration date of any of the required policies. All Certificates of Insurance shall be in a form acceptable to Village of Downers Grove and shall provide satisfactory evidence of compliance with all insurance requirements. The Village of Downers Grove shall not be obligated to review such certificates or other evidence of insurance, or to advise Contractor or Subcontractor of any deficiencies in such documents, and receipt thereof shall not relieve the Contractor or Subcontractor from, nor be deemed a waiver the right to enforce the terms of the obligations hereunder. The Village of Downers Grove shall have the right to examine any policy required and evidenced on the Certificate of Insurance.
- 38.9 If the Work under the Contract Documents includes design, consultation, or any other professional services, Contractor or the Subcontractor shall procure, maintain, and pay for Professional Errors and Omissions insurance with limits of not less than \$2,000,000 per claim and \$2,000,000 annual aggregate. If such insurance is written on a claim made basis, the retrospective date shall be prior to the start of the Work under the Contract Documents. Contractor and all Subcontractors agree to maintain such coverage for three (3) years after final acceptance of the Project by the Owner or such longer period as the Contract Documents may require. Renewal policies during this period shall maintain the same retroactive date.
- 38.10 Any deductibles or self-insured retentions shall be the sole responsibility of the Insured. At the option of the Municipality, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Municipality, its officers, officials, employees and volunteers; or the Proposer shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

**39. SUBLETTING OF CONTRACT**

- 39.1 No contract awarded by the Village of Downers Grove shall be assigned or any part sub-contracted without the written consent of the Village Manager. In no case shall such consent relieve the Awarded Bidder from his obligation or change the terms of the contract.

**40. TERM OF CONTRACT**

- 40.1 This contract may be extended no more than twice for subsequent annual periods (two annual extensions) by mutual agreement of both parties, providing such agreement complies with Village purchasing policies and the availability of funds. However, if this contract is not one that is subject to extension, such information will be available in the detailed specifications or special conditions sections, supra.

**41. TERMINATION OF CONTRACT**

- 41.1 The Village reserves the right to terminate the whole or any part of this contract, upon written notice to the Awarded Bidder, for any reason and/or in the event that sufficient funds to complete the contract are not appropriated by the Village of Downers Grove.

- 41.2 The Village further reserves the right to terminate the whole or any part of this contract, upon ten (10) days' written notice to the Awarded Bidder, in the event of default by the Awarded Bidder. Default is defined as failure of the Awarded Bidder to perform any of the provisions of this contract or failure to make sufficient progress so as to endanger performance of this contract in accordance with its terms. In the event that the Awarded Bidder fails to cure the default upon notice, and the Village declares default and termination, the Village may procure, upon such terms and in such manner as the Purchasing Manager may deem appropriate, supplies or services similar to those so terminated. The Awarded Bidder shall be liable for any excess costs for such similar supplies or services unless acceptable evidence is submitted to the Purchasing Manager that failure to perform the contract was due to causes beyond the control and without the fault or negligence of the Awarded Bidder. Any such excess costs incurred by the Village may be set-off against any monies due and owing by the Village to the Awarded Bidder.

**42. BILLING & PAYMENT PROCEDURES**

- 42.1 Payment will be made upon receipt of an invoice referencing Village of Downers Grove purchase order number. Once an invoice and receipt of materials or service have been verified, the invoice will be processed for payment in accordance with the Village of Downers Grove payment schedule. The Village of Downers Grove will comply with the Local Government Prompt Payment Act, 50 ILCS 505/1 et seq., in that any bill approved for payment must be paid or the payment issued to the bidder within 60 days of receipt of a proper bill or invoice. If payment is not issued to the bidder within this 60 day period, an interest penalty of 1.0% of any amount approved and unpaid shall be added for each month or fraction thereof after the end of this 60 day period, until final payment is made.
- 42.2 The Village of Downers Grove shall review in a timely manner each bill or invoice after its

receipt. If the Village of Downers Grove determines that the bill or invoice contains a defect making it unable to process the payment request, the Village shall notify the bidder requesting payment as soon as possible after discovering the defect pursuant to rules promulgated under 50 ILCS 505/1 et seq. The notice shall identify the defect and any additional information necessary to correct the defect.

- 42.3 If this contract is for work defined as a “fixed public work” project under the Illinois Prevailing Wage Act, 820 ILCS 130/2, any contractor or subcontractor is required to submit certified payroll records along with the invoice. No invoice shall be paid without said records.
- 42.4 Please send all invoices to the attention of Village of Downers Grove, Accounts Payable, 801 Burlington, Downers Grove, IL 60515.

**43. RELATIONSHIP BETWEEN THE BIDDER AND THE VILLAGE**

- 43.1 The relationship between the Village and the bidder is that of a buyer and seller of professional services and it is understood that the parties have not entered into any joint venture or partnership with the other.

**44. STANDARD OF CARE**

- 44.1 Any services performed by bidder under this Agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representations express or implied, and no warranty or guarantee is included or intended in this Agreement or in any report, opinions, and documents or otherwise.
- 44.2 If the bidder fails to meet the foregoing standard, bidder will perform at its own cost, and without reimbursement from the Village, the professional services necessary to correct errors and omissions caused by bidder’s failure to comply with the above standard and reported to bidder within one (1) year from the completion of bidder’s services for the Project.
- 44.3 For Professional Service Agreements (i.e. Engineer, Consultant): Project site visits by bidder during construction or equipment installation or the furnishing of Project representatives shall not make bidder responsible for: (i) constructions means, methods, techniques, sequences or procedures; (ii) for construction safety precautions or programs; (iii) or for any construction contactor(s’) failure to perform its work in accordance with contract documents.

**45. SUCCESSORS AND ASSIGNS**

- 45.1 The terms of this Agreement will be binding upon and inure to the benefit of the parties and their respective successors and assigns; provided, however, that neither party will assign this Agreement in whole or in part without the prior written approval of the other.

The bidder will provide a list of key staff, titles, responsibilities, and contact information to include all expected sub-bidders.

**46. WAIVER OF CONTRACT BREACH**

46.1 The waiver by one party of any breach of this Agreement or the failure of one party to enforce at any time, or for any period of time, any of the provisions hereof will be limited to the particular instance and will not operate or be deemed to waive any future breaches of this Agreement and will not be construed to be a waiver of any provision except for the particular instance.

**47. CHANGE ORDERS**

47.1 The contract price is a "not-to-exceed" cost. At any time additional work is necessary or requested, and the not-to-exceed price is increased thereby, all parties must agree to any change, addition or price increase in writing. The appropriate authorizing signature for the Village is the Village Manager.

47.2 Change orders for public works projects which authorize an increase in the contract price that is 50% or more of the original contract price or that authorize or necessitate any increase in the price of a subcontract under the contract that is 50% or more of the original subcontract price must be resubmitted for bidding in the same manner by which the original contract was bid. (50 ILCS 525/1)

**48. SEVERABILITY OF INVALID PROVISIONS**

48.1 If any provisions of this Agreement are held to contravene or be invalid under the laws of any state, country or jurisdiction, contravention will not invalidate the entire Agreement, but it will be construed as if not containing the invalid provision and the rights or obligations of the parties will be construed and enforced accordingly.

**49. GOVERNING LAW**

49.1 This Agreement will be governed by and construed in accordance with the laws of the State of Illinois. Venue is proper only in the County of DuPage for state cases or the Northern District of Illinois for federal cases.

**50. NOTICE**

50.1 Any notice will be in writing and will be deemed to be effectively served when deposited in the mail with sufficient first class postage affixed, and addressed to the party at the party's place of business. Notices shall be addressed to the Village as follows:

**Village Manager  
Village of Downers Grove  
801 Burlington Ave.  
Downers Grove, IL 60515**

And to the Bidder as specified on the Contract Form.

**51. AMENDMENT**

50.1 This Agreement will not be subject to amendment unless made in writing and signed by all parties.

**52. COOPERATION WITH FOIA COMPLIANCE**

Contractor acknowledges that the Freedom of Information Act may apply to public records in possession of the Contractor or a subcontractor. Contractor and all of its subcontractors shall cooperate with the Village in its efforts to comply with the Freedom of Information Act . 5 ILCS 140/1 et.seq.

**III.**  
**DETAIL SPECIFICATIONS**  
**SOLAR HEATING SYSTEMS**

The Village of Downers Grove is seeking to purchase the following Solar Heating Equipment, and parts, all quantities are estimated. These part numbers are "Rural Renewable Energy Alliance".

Please also include a bid for equivalent products, and specifications.

**All products must be manufactured in the United States.** Material Safety Data sheets are required with bids. Please include shipping charges, and delivery information.

**Estimated  
Quantity**

- 30        **Item # SPF40-UWLW- UELE SPF40 CENTER PARALLEL PANELS**
- 32        **Item # SPF40-UWLW    SPF40-SIDE PARALLEL**
- 92        **Item# RURALL-001 Stints**
- 20        **Item# 12AC0 12" STARTER COLLARS, NO CRIMP**
- 10        **Item#AXC300A FANS-AXC 300A 1"**
- 20        **Item# BDD 300 12" BDD300 12"**
- 10        **Item#SHFG2014 14x20 FILTER RAG**
- 10        **Item#14x20x1F1 14x20 FILTER**
- 6         **Item # EAGLE2 WARMAIR IMC WARM AIR THERMAL DIFFERENTIAL  
CONTROLLER SERI**
- 496FT    **Item # 63ACH2118 MOUNTING RAIL"C" CHANNEL 6063 2"X1"X1/8"**
- 30FT     **Item # AAACO120100 12" x " KNAUF-Hi-TEMP INSULATION (IN FEET)**
- 248 FT   **Item# SPF-FLASH 8"PRE- BENT FLASHING**
- 62        **Item# SPF40-BACKPANEL SPF40-AL BACK PANEL**

III  
DETAIL SPECIFICATIONS  
SOLAR HEATING SYSTEMS  
(CONT).

- 50      **Item# SIL-DURASIL BLACK DURASIL SEALANT 10.1oz**
  
- 6        **Item# AXC200A FANS-AXC 200A 8"**
  
- 12      **Item# Part #BDD200 BDD200 8"**
  
- 6        **Item # FG10X10 10 X 10 FILTER RAGS GOODIN**
  
- 12      **Item# P1312 9 3/4 X9 3/4 FILTER**
  
- 6        **Item# EAGLEWARAIR IMC WARM AIR THERMAL DIFFERENTIAL  
CONTROLLER SERI**
  
- 12      **Item #8AC0 8" STARTER COLLARS A UNCRIMPED**
  
- 18FT    **Item# AAACO800100 8" KNAUF HI-TEMP INSULATION**

Do you offer discounted invoice payment terms   No  

Net 10 days \_\_\_\_\_ Net 15 days \_\_\_\_\_



**IV. BID/CONTRACT FORM**

**\*\*\*THIS BID WHEN ACCEPTED AND SIGNED BY AN AUTHORIZED SIGNATORY OF THE VILLAGE OF DOWNERS GROVE SHALL BECOME A CONTRACT BINDING UPON BOTH PARTIES.**

**Entire Block Must Be Completed When A Submitted Bid Is To Be Considered For Award**

**BIDDER:**

RURAL RENEWABLE ENERGY ALLIANCE  
Company Name

Date: 6-28-10

2330 DANCING WIND RD SW, STE 2  
Street Address of Company

info@rreal.org  
Email Address


PINE RIVER, MN 56474  
City, State, Zip

BJ ALLEN  
Contact Name (Print)

218-587-4753  
Business Phone

218-209-5584  
24-Hour Telephone

218-587-4753  
Fax

  
Signature of Officer, Partner or Sole Proprietor

JASON EDENS, DIRECTOR  
Print Name & Title

ATTEST: If a Corporation

  
Signature of Corporation Secretary *Technical Director*

**VILLAGE OF DOWNERS GROVE:**

\_\_\_\_\_  
Authorized Signature

ATTEST:

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature of Village Clerk

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

In compliance with the specifications, the above-signed offers and agrees, if this Bid is accepted within 90 calendar days from the date of opening, to furnish any or all of the services upon which prices are quoted, at the price set opposite each item, delivered at the designated point within the time specified above.

IV. BID CONTRACT FORM (CONT).

DESCRIPTION	ESTIMATED QUANTITY	UNIT PRICE	EXTENDED PRICE
Item # SPF40-UWLW-UELE SPF40 CENTER PARALLEL PANELS	30	\$1310-	\$39,300-
Item # SPF40-UWLW SPF40-SIDE PARALLEL	32	\$1310-	\$41,920-
Item# RURAL-001 Stints	92	\$115-	\$10,580-
Item# 12AC0 12" STARTER COOLARS, NO CRIMP	20	\$5-	\$100-
Item#AXC300A FANS-AXC 300A 12"	10	\$363-	\$3,630-
Item# BDD 300 12" BDD300 12"	20	\$60-	\$1,200-
Item#SHFG2014 14x20 FILTER RAG	10	\$39-	\$390-
Item#14x20x1F1 Filter	10	\$2-	\$20-
Item # EAGLE2 WARMAIR IMC WARM AIR THERMAL DIFFERENTIAL CONTROLLER SERI	6	\$319-	\$1,914-
Item # 63ACH2118 MOUNTING RAIL"C" CHANNEL 6063 2 "X1 "X1/8"	496FT	\$250	\$1,240-
Item # AAAC0120100 12" x 1" KNAUF-Hi-TEMP INSULATION	30FT	\$1750	\$525-
SPF -FLASH 8"PRE-BENTBENT FLASHING	248 FT	\$2-	\$496-

IV. BID CONTRACT FORM (CONT).

DESCRIPTION	ESTIMATED QUANTITY	UNIT PRICE	EXTENDED PRICE
Item# SPF40-BACKPANEL SPF40-AL BACK PANEL	62	\$54-	\$3,348
Item# SIL-DURASIL BLACK DURASIL SEALANT 10.1oz	50	\$6 <sup>50</sup>	\$325-
Item# AXC200A FANS-AXC 200A 8"	6	\$242-	\$1452-
Item# Part #BDD200 BDD200 8"	12	\$38-	\$456-
Item # FG10X10 10 X 10 FILTER RAGS GOODIN	6	\$17-	\$102-
Item# P1312 9 ¼ X9 ¼ FILTER	12	\$2 <sup>50</sup>	\$30-
Item# EAGLE2WARAIR IMC WARM AIR THERMAL DIFFERENTIAL CONTROLLER SERI	6	\$319-	\$1,914-
Item #8AC0 8" STARTER COLLARS A UNCRIMPED	12	\$4-	\$48-
Item# AAAC0800100 8" KNAUF HI-TEMP INSULATION	18FT	\$12-	\$216-
ESTIMATED SHIPPING COST			\$ 3,625-
TOTAL COST			\$ 112,831-*

\* please see attached statement

IV.BID CONTRACT FORM (CONT).  
ALTERNATE BID

DESCRIPTION	EQUIVALENT PART#	ESTIMATED QUANTITY	UNIT PRICE	EXTENDED PRICE
Item # SPF40-UWLW- UELE SPF40 CENTER PARALLEL PANELS		30		
Item # SPF40-UWLW SPF40-SIDE PARALLEL		32		
Item# RURAL-001 Stints		92		
Item# 12AC0 12" STARTER COLLARS, NO CRIMP		20		
Item#AXC300A FANS-AXC 300A 12"		10		
Item# BDD 300 12" BDD300 12"		20		
Item#SHFG2014 14x20 FILTER RAG		10		
Item# 14x20x1F1 14x20 FILTER		10		
Item# AGLE2WARAIR IMC WARM AIR THERMAL DIFFERENTIAL CONTROLLER SERI		6		

IV.BID CONTRACT FORM (CONT).  
ALTERNATE BID

DESCRIPTION	EQUIVALENT PART#	ESTIMATED QUANTITY	UNIT PRICE	EXTENDED PRICE
Item # 63ACH2118 MOUNTING RAIL"C" CHANNEL 6063 2"X1" X1/8"		496FT		
Item # AAC0120100 12'` x 1`` KNAUF- HI-TEMP INSULATION (IN FEET)		30FT		
Item# SPF-FLASH 8" PRE-BEND FLASHING		248 FT		
Item# SPF40- BACKPANEL SPF40-AL BACK PANEL		62		
Item# SIL-DURASIL BLACK DURASIL SEALANT 10.1oz		50		
Item# AXC200A FANS-AXC 200A 8"		6		
Item# Part #BDD200 BDD200 8"		12		
Item # FG10X10 10 X 10 FILTER RAGS GOODIN		6		
Item# P1312 9 ¼ X9 ¼ FILTER		12		
Item# EAGLE2WARMAIR IMC WARM AIR THERMAL DIFFERENTIAL CONTROLLER SERI		6		
Item #8AC0 8" STARTER COLLARS A UNCRIMPED		12		
Item# AAAC0800100 8" KNAUF HI-TEMP INSULATION		18FT		

MUNICIPAL REFERENCE LIST

Municipality RICHARDSON TOWNSHIP  
Address: 36764 QUEST RO., HILLMAN, MN 56338  
Telephone # 320-630-3079  
Contact Name BETSY LUNDQVIST

Municipality: ST. LOUIS COUNTY  
Address: 100 N. 5<sup>TH</sup> AVE W. RM 2, DULUTH, MN 55802  
Telephone # 218-725-5085  
Contact Name TONY MANUISO

Municipality: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone # \_\_\_\_\_  
Contact Name \_\_\_\_\_

Municipality: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone # \_\_\_\_\_  
Contact Name \_\_\_\_\_

Municipality: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone # \_\_\_\_\_  
Contact Name \_\_\_\_\_

Municipality \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone # \_\_\_\_\_  
Contact Name \_\_\_\_\_

Municipality \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone # \_\_\_\_\_  
Contact Name \_\_\_\_\_

VENDOR W-9 REQUEST FORM



The law requires that we maintain accurate taxpayer identification numbers for all individuals and partnerships to whom we make payments, because we are required to report to the I.R.S all payments of \$600 or more annually. We also follow the I.R.S. recommendation that this information be maintained for all payees including corporations.

Please complete the following substitute W-9 letter to assist us in meeting our I.R.S. reporting requirements. The information below will be used to determine whether we are required to send you a Form 1099. Please respond as soon as possible, as failure to do so will delay our payments.

BUSINESS (PLEASE PRINT OR TYPE):

NAME: RURAL RENEWABLE ENERGY ALLIANCE

ADDRESS: 2330 DANCING WIND RD SW STE 2

CITY: PINE RIVER

STATE: MN

ZIP: 56474

PHONE: 218-587-4753 FAX: 218-587-4753

TAX ID #(TIN): 41-1999030

(If you are supplying a social security number, please give your full name)

REMIT TO ADDRESS (IF DIFFERENT FROM ABOVE):

NAME: Same as above

ADDRESS:

CITY:

STATE: ZIP:

TYPE OF ENTITY (CIRCLE ONE):

- Individual
Sole Proprietor
Partnership
Medical
Charitable/Nonprofit
Limited Liability Company -Individual/Sole Proprietor
Limited Liability Company-Partnership
Limited Liability Company-Corporation
Corporation
Government Agency

DATE: 6-28-10

SIGNATURE: [Handwritten Signature]

**BIDDER'S CERTIFICATION** (page 1 of 3)

With regard to SOLAR HEATING SYSTEM, bidder RURAL RENEWABLE ENERGY ALLIANCE hereby certifies  
(Name of Project) (Name of Bidder)

the following:

1. Bidder is not barred from bidding this contract as a result of violations of Section 720 ILCS 5/33E-3 (Bid Rigging) or 720 ILCS 5/33E-4 (Bid-Rotating);
2. Bidder certifies that it has a written sexual harassment policy in place and full compliance with 775 ILCS §12-105(A)(4);
3. Bidder certifies that not less than the prevailing rate of wages as determined by the Village of Downers Grove, DuPage County or the Illinois Department of Labor shall be paid to all laborers, workers and mechanics performing work for the Village of Downers Grove. All bonds shall include a provision as will guarantee the faithful performance of such prevailing wage clause. Bidder agrees to comply with the Illinois Prevailing Wage Act, 820 ILCS 130/1 *et seq.*, for all work completed. Bidder agrees to pay the prevailing wage and require that all of its subcontractors pay prevailing wage to any laborers, workers or mechanics who perform work pursuant to this contract or related subcontract. Bidder and each subcontractor shall keep or cause to be kept an accurate record of names, occupations and actual wages paid to each laborer, workman and mechanic employed by the Bidder in connection with the contract. This record shall be sent to the Village on a monthly basis along with the invoice and shall be open to inspection at all reasonable hours by any representative of the Village or the Illinois Department of Labor and must be preserved for four (4) years following completion of the contract. Bidder certifies that bidder and any subcontractors working on the project are aware that filing false payroll records is a class B misdemeanor and that the monetary penalties for violations are to be paid pursuant to law by the bidder, contractor and subcontractor. The Village shall not be liable for any underpayments. If applicable: Since this is a contract for a fixed public works project, as defined in 820 ILCS 130/2, Contractor agrees to post at the job site in an easily accessible place, the prevailing wages for each craft or type of worker or mechanic needed to execute the contract or work to be performed;
4. Bidder certifies that it is in full compliance with the Federal Highway Administrative Rules on Controlled Substances and Alcohol Use and Testing, 49 C.F.R. Parts 40 and 382 and that all employee drivers are currently participating in a drug and alcohol testing program pursuant to the Rules;
5. Bidder further certifies that it is not delinquent in the payment of any tax administered by the Department of Revenue, or that Bidder is contesting its liability for the tax delinquency or the amount of a tax delinquency in accordance with the procedures established by the appropriate Revenue Act. Bidder further certifies that if it owes any tax payment(s) to the Department of Revenue, Bidder has entered into an agreement with the Department of Revenue for the payment



**BIDDER'S CERTIFICATION (page 2 of 3)**

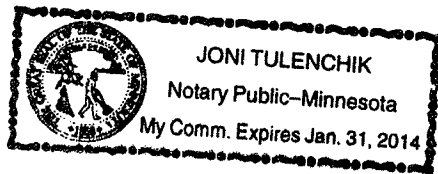
of all such taxes that are due, and Bidder is in compliance with the agreement.

BY: [Signature]  
Bidder's Authorized Agent

41-1999030

**FEDERAL TAXPAYER IDENTIFICATION NUMBER**

or \_\_\_\_\_  
Social Security Number



Subscribed and sworn to before me  
this 28<sup>th</sup> day of June,

2014  
[Signature]  
Notary Public

(Fill Out Applicable Paragraph Below)

**(a) Corporation**

The Bidder is a corporation organized and existing under the laws of the State of MN,  
which operates under the Legal name of RURAL RENEWABLE ENERGY ALLIANCE,  
and the full names of its Officers are as follows:

Director:  
President: JASON EDENS

Board Chair  
Secretary: STEVEN BENSON

Treasurer: BARB MANN

and it does have a corporate seal. (In the event that this bid is executed by other than the  
President, attach hereto a certified copy of that section of Corporate By-Laws or other  
authorization by the Corporation which permits the person to execute the offer for the  
corporation.)

**(b) Partnership**

Signatures and Addresses of All Members of Partnership:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**BIDDER'S CERTIFICATION (page 3 of 3)**

The partnership does business under the legal name of: \_\_\_\_\_  
which name is registered with the office of \_\_\_\_\_ in the state of \_\_\_\_\_.

**(c) Sole Proprietor**

The Supplier is a Sole Proprietor whose full name is: \_\_\_\_\_  
and if operating under a trade name, said trade name is: \_\_\_\_\_  
which name is registered with the office of \_\_\_\_\_ in the state of \_\_\_\_\_.

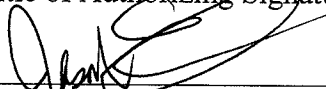
5. Are you willing to comply with the Village's preceding insurance requirements within 13 days of the award of the contract? YES

INSURER'S NAME CASS COMPANY  
AGENT DAN MEIER  
Street Address 103 MILL STREET PO BOX 313  
City, State, Zip Code PINE RIVER, MN 56474  
Telephone Number (218) 587-2374

I/We hereby affirm that the above certifications are true and accurate and that I/we have read and understand them.

Print Name of Company: RURAL RENEWABLE ENERGY ALLIANCE

Print Name and Title of Authorizing Signature: JASON EDENS, DIRECTOR

Signature:  \_\_\_\_\_

Date: 6-28-10

**Apprenticeship and Training Certification**

(Does not apply to federal aid projects. Applicable only to maintenance and construction projects that use Motor Fuel Tax funds or state grant monies)

Name of Bidder: RURAL RENEWABLE ENERGY ALLIANCE

In accordance with the provisions of Section 30-22 (6) of the Illinois Procurement Code, the bidder certifies that it is a participant, either as an individual or as part of a group program, in the approved apprenticeship and training programs applicable to each type of work or craft that the bidder will perform with its own forces. The bidder further certifies for work that will be performed by subcontract that each of its subcontractors submitted for approval either (a) is, at the time of such bid, participating in an approved, applicable apprenticeship and training program; or (b) will, prior to commencement of performance of work pursuant to this contract, begin participation in an approved apprenticeship and training program applicable to the work of the subcontract. The Illinois Department of Labor, at any time before or after award, may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. Applicable apprenticeship and training programs are those that have been approved and registered with the United States Department of Labor. The bidder shall list in the space below, the official name of the program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participant and that will be performed with the bidder's forces. Types of work or craft work that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category that does not have an applicable apprenticeship or training program. **The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project is accounted for and listed. Return this with the bid.**

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The requirements of this certification and disclosure are a material part of the contract, and the contractor shall require this certification provision to be included in all approved subcontracts. In order to fulfill this requirement, it shall not be necessary that an applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this contract.

Print Name and Title of Authorizing Signature: JASON GOENS, Director

Signature: 

Date: 6-28-10

**BUY AMERICA CERTIFICATION**

**Certification requirement for procurement of steel, iron, or manufactured products when Federal funds (Grant Agreement or Cooperative Agreement) are used.**

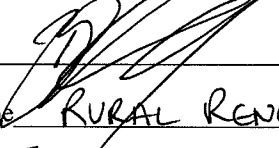
*Instructions:*

*Bidder to complete the Buy America Certification listed below. Bidder shall certify EITHER COMPLIANCE OR NON-COMPLIANCE (not both). This Certification MUST BE submitted with the Bidder's bid response.*

*Special Note: Make sure you have signed only one of the above statements – either Compliance OR Non-Compliance (not both).*

**Certificate of Compliance**

The bidder or offeror hereby certifies that it **will meet** the requirements of 49 U.S.C. 5323(j)(1), as amended, and the applicable regulations in 49 CFR Part 661.

Signature   
Company Name RURAL RENEWABLE ENERGY ALLIANCE  
Title TECHNICAL DIRECTOR  
Date 6-28-10

**Certificate of Non-Compliance**

The bidder or offeror hereby certifies that it **cannot comply** with the requirements of 49 U.S.C. 5323(j)(1), as amended, and 49 C.F.R. 661, but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. 661.7.

Signature \_\_\_\_\_  
Company Name \_\_\_\_\_  
Title \_\_\_\_\_  
Date \_\_\_\_\_

**AFTER THIS CERTIFICATE HAS BEEN EXECUTED, A BIDDER MAY NOT SEEK A WAIVER.**

Note: The U.S/Canadian Free Trade Agreement does not supersede the Buy America requirement.

**Suspension or Debarment Certificate**

Non-Federal entities are prohibited from contracting with or making sub-awards under covered transactions to parties that are suspended or debarred or whose principals are suspended or debarred. Covered transactions include procurement for goods or services equal to or in excess of \$100,000.00 contractors receiving individual awards for \$100,000.00 or more and all sub-recipients must certify that the organization and its principals are not suspended or debarred.

By submitting this offer and signing this certificate, the bidder certifies to the best of its knowledge and belief, that the company and its principals:

- 1. Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any federal, state or local governmental entity, department or agency.
- 2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction, or convicted of or had a civil judgment against them for a violation of Federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- 3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (2) of this certification: and
- 4. Have not within a three-year period preceding this application/proposal/contract had one or more public transactions (Federal, State or local) terminated for cause or default.

If the bidder is unable to certify to any of the statements in this certification, bidder shall attach an explanation to this certification.

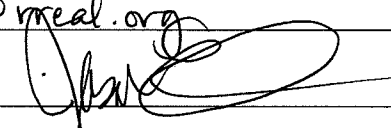
Company Name: RURAL RENEWABLE ENERGY ALLIANCE

Address: 2330 DANCING WIND RD SW STE 2

City: PINE RIVER, MN Zip Code: 56474

Telephone: (218) 587-4753 Fax Number: (218) 587-4753

E-mail Address: info@rreal.org

Authorized Company Signature: 

Print Signature Name: JASON EDEN Title of Official: DIRECTOR

Date: 6-28-10

**CAMPAIGN DISCLOSURE CERTIFICATE**

Any contractor, proposer, bidder

or vendor who responds by submitting a bid or proposal to the Village of Downers Grove shall be required to submit with its bid submission, an executed Campaign Disclosure Certificate, attached hereto.

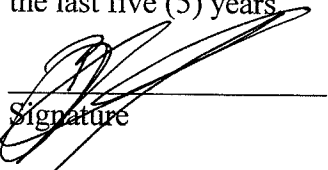
The Campaign Disclosure Certificate is required pursuant to the Village of Downers Grove Council Policy on Ethical Standards and is applicable to those campaign contributions made to any member of the Village Council.

Said Campaign Disclosure Certificate requires any individual or entity bidding to disclose campaign contributions, as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4), made to current members of the Village Council within the five (5) year period preceding the date of the bid or proposal release.

By signing the bid documents, contractor/proposer/bidder/vendor agrees to refrain from making any campaign contributions as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4) to any Village Council member and any challengers seeking to serve as a member of the Downers Grove Village Council.

Under penalty of perjury, I declare:

Bidder/vendor has not contributed to any elected Village position within the last five (5) years

  
Signature

BJ ALLEN  
Print Name

Bidder/vendor has contributed a campaign contribution to a current member of the Village Council within the last five (5) years.

Print the following information:

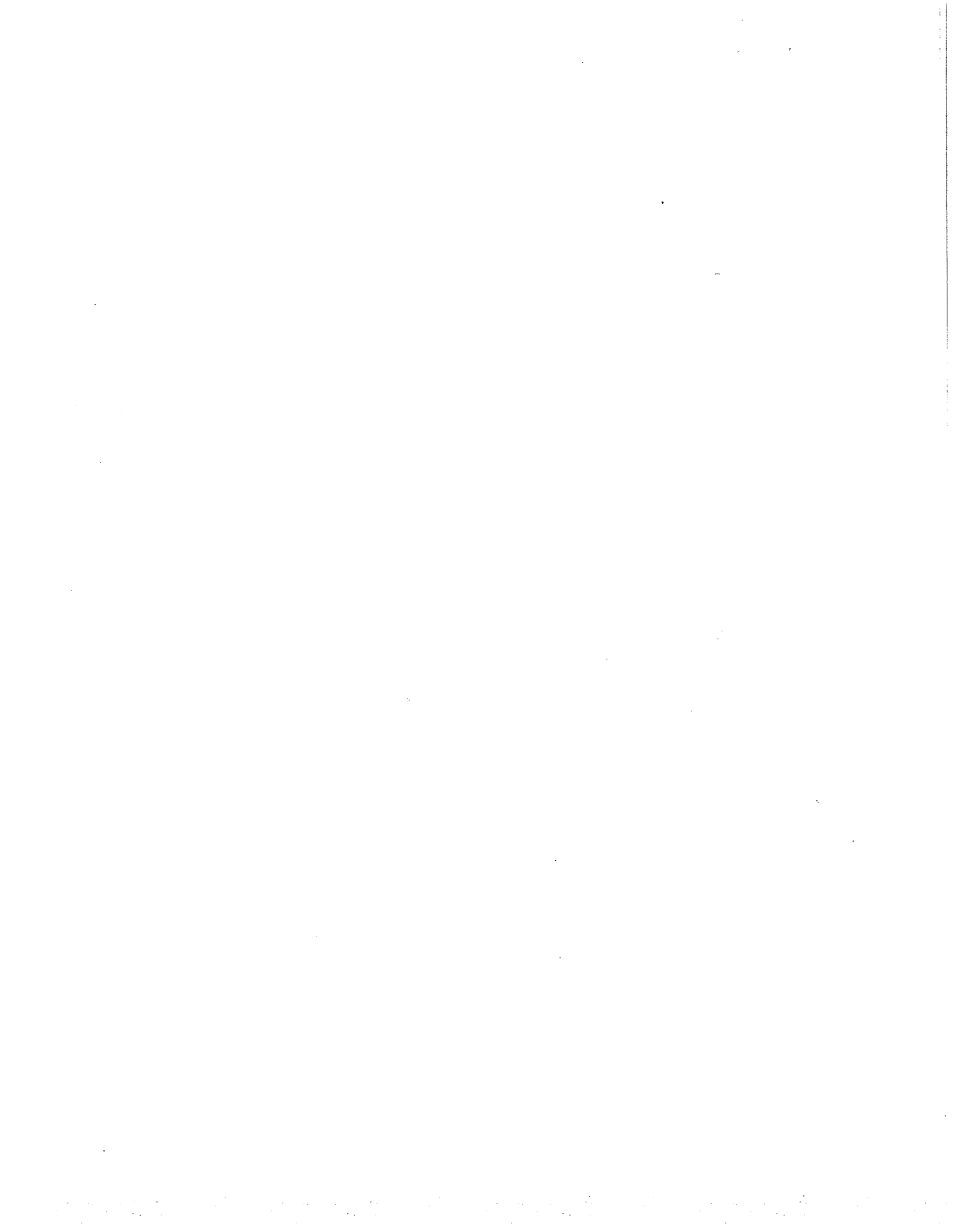
Name of Contributor: \_\_\_\_\_  
(company or individual)

To whom contribution was made: \_\_\_\_\_

Year contribution made: \_\_\_\_\_ Amount: \$ \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name



FAN WARRANTY

## CONDITIONS OF SALE

### TERMS AND PRICES

- (a) Terms of payment on all orders are subject to the approval of Continental's/Aeroflo's credit department and, unless otherwise stated, are NET 30 days from the date of invoice without regard to the date of delivery of the products. All orders will be COD prior to credit approval.
- (b) Prices and deliveries are F.O.B. Buffalo, N.Y./Mississauga, Ontario.
- (c) Prices do not include any Local, State or Federal taxes.
- (d) Continental/Aeroflo reserves the right to change prices and specifications without notice.
- (e) Quantity discounts are determined by the number of fans purchased. The same discount that applies to the fan also applies to accessories regardless of the quantity of accessories.
- (f) No order will be shipped if any invoices are past due.

### SHIPPING AND DELIVERY

- (a) Buyer shall be deemed to have received all goods and to have waived all claims for damages or shortages upon the earliest to occur of 1) payment for the product, or 2) 10 days after delivery of goods.
- (b) Under no circumstances will Continental/Aeroflo be responsible for consequential or incidental damages arising out of or owing to any delays in delivery.
- (c) Orders which include special or non-stock products will be processed as split shipments with stock items shipped at once, and special or non-stock products shipped when available unless a notation to the contrary appears on Buyer's purchase order.

### RETURN POLICY

- (a) Claims for damages or shortages must be reported within ten (10) days of receipt of product.
- (b) For any product damages in shipment, whether concealed or visible, claims must be filed with the trucking or courier company.
- (c) Shortages - Sign only for the number of pieces received, and contact Continental/Aeroflo immediately.
- (d) No product will be accepted without a Return Materials Authorization (RMA) number. This can be obtained only by Buyer from Continental/Aeroflo RMA number must be clearly written on the outside of the carton, or the carton will be refused.
- (e) All product being returned must be shipped prepaid.
- (f) Product will be repaired/replaced and shipped back to Buyer, no credit will be issued.
- (g) Any product returned to Continental/Aeroflo that is not covered by Warranty will be returned, without action, to Buyer, freight collect; no credit will be issued.

### CANCELLATIONS, CHANGES, ALTERATIONS OR RETURNS

- (a) Orders placed cannot be cancelled or altered, nor can deferred deliveries of products completed or in process be extended beyond original specified delivery dates, except with Continental's/Aeroflo's consent and upon terms which will indemnify Continental/Aeroflo against loss.
- (b) Any claim based on the receipt of damaged products must be filed with the carrier which delivered the products. Continental/Aeroflo will not allow credit for the return of damaged products.

(c) Products returned without Continental's/Aeroflo's Return Materials Authorization number will not be accepted. Continental/Aeroflo will not accept the return of any special, non-stock, obsolete or unsaleable products. Continental/Aeroflo may, at its option, accept returned products subject to a 25% restocking charge for inspection and repacking.

### WARRANTY

This warranty supersedes all prior warranties.

Continental/Aeroflo AXC fans are warranted against defects in material and workmanship for a period of five years from date of purchase. All other products are warranted for a period of one year from date of purchase.

Continental/Aeroflo will repair or replace F.O.B. factory, any part or product which has a defect in materials or workmanship. Product must be properly packaged and returned prepaid with RMA number clearly written on the outside of carton to Continental/Aeroflo with a copy of the Bill of Sale to verify purchase date.

Continental/Aeroflo will not accept collect shipments of returned goods.

### WARRENTY DOES NOT APPLY TO:

1. Shipping damage, either concealed or visible. Claims must be filed with the carrier.
2. Damage caused by improper installation or improper wiring, including incorrect electrical voltage.
3. Product which has been modified.
4. Damage caused by corrosion, abrasion or severe temperatures.
5. Product which has had the identification label removed or altered.
6. Product which has been subjected to improper maintenance, abuse, misuse, abnormal usage or accident.

These warranties give you specific legal rights, and are subject to any applicable consumer protection legislation. You may also have additional rights which vary from state to state.

No other warranties, expressed, implied or written shall apply to this product. Continental/Aeroflo will not be responsible for any consequential or incidental damages, loss of property, revenues or profit, cost of removal, installation, or re-installation, personal damage or loss of life, or for any breach of warranty, regardless of how caused.

in the U.S.A.:

**Continental Fan Manufacturing Inc.**  
203 Eggert Road  
Buffalo, New York 14215

Tel : (716)-842-0670  
Fax : (716)-842-0611

Toll Free Tel : 800-779-4021  
Toll Free Fax : 800-779-4022

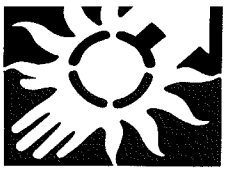
in Canada:

**Aeroflo Inc.**  
205 Matheson Blvd. East  
Unit # 12  
Mississauga, Ontario  
L4Z 3E3

Tel : (905)-890-6192







# RRREAL

Rural Renewable Energy Alliance



## SPF SOLAR POWERED FURNACE

NO CAULKING  
**GLAZING CAP**  
AND GASKET PROVIDE  
WATER TIGHTNESS

TOUGH AND TEMPERED  
**SOLAR GLAZING**  
91.8% TRANSMITTANCE

DURABLE  
**ALUMINUM FRAME**  
INTERNAL CORNER  
BRACKETS INTERLOCK  
WITH FRAME

SELECTIVELY  
COATED ALUMINUM  
**ABSORBER**  
**PLATE**  
OVER 93%  
ABSORPTANCE

**ARRAY  
INTERCONNECT**  
SEAMLESS AIRTIGHT  
COLLECTOR COUPLING

**AIRFLOW DESIGN**  
UNIFORM AIR DISTRIBUTION,  
& FLEXIBLE INSTALLATION


**R12 INSULATION**  
MINIMIZES HEAT LOSS

**HIDDEN RACKING  
SYSTEM**  
AESTHETIC AND SAFE  
MOUNTING OF COLLECTORS

Collector	SPF 40	SPF 32	SPF 26
Gross Area (ft <sup>2</sup> )	40.8	32.8	26.1
Dimensions	10'2 <sup>1</sup> / <sub>8</sub> " x 4'1 <sup>1</sup> / <sub>8</sub> " x 6 <sup>1</sup> / <sub>2</sub> "	8'2 <sup>1</sup> / <sub>8</sub> " x 4'1 <sup>1</sup> / <sub>8</sub> " x 6 <sup>1</sup> / <sub>2</sub> "	6.5 x 4'1 <sup>1</sup> / <sub>8</sub> " x 6 <sup>1</sup> / <sub>2</sub> "
Weight (lbs)	160	125	100
Recommended Flow Rate	160 CFM	128 CFM	104 CFM
Btu Output (Daily)	45,000	35,800	28,300

2330 Dancing Wind Rd SW, Suite #2, Pine River, MN 56474  
218-587-4753 info@rreal.org www.rreal.org



<b>SOLAR COLLECTOR CERTIFICATION AND RATING</b>   <b>SRCC OG-100</b>	<b>CERTIFIED SOLAR COLLECTOR</b>  <b>SUPPLIER:</b> Rural Renewable Energy Alliance 2330 Dancing Wind Rd SW, Suite 2 Pine River, MN 56474 USA  <b>MODEL:</b> SPF 40  <b>COLLECTOR TYPE:</b> RREAL Solar Powered Furnace (SPF) Glazed Flat-Plate  <b>CERTIFICATION#:</b> 2007047A
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### COLLECTOR THERMAL PERFORMANCE RATING

Megajoules Per Panel Per Day				Thousands of BTU Per Panel Per Day			
CATEGORY (Ti-Ta)	CLEAR DAY	MILDLY CLOUDY	CLOUDY DAY	CATEGORY (Ti-Ta)	CLEAR DAY	MILDLY CLOUDY	CLOUDY DAY
A (-5 °C)	47.4	36.4	25.4	A (-9 °F)	45.0	34.5	24.0
B (5 °C)	37.8	26.7	15.9	B (9 °F)	35.8	25.3	15.1
C (20 °C)	24.8	14.7	5.1	C (36 °F)	23.5	13.9	4.8
D (50 °C)	4.6	0.0	0.0	D (90 °F)	4.3	0.0	0.0
E (80 °C)	0.0	0.0	0.0	E (144 °F)	0.0	0.0	0.0

A- Pool Heating (Warm Climate) B- Pool Heating (Cool Climate) C- Water Heating (Warm Climate) D- Water Heating (Cool Climate) E- Air Conditioning

Original Certification Date: 14-APR-10

### COLLECTOR SPECIFICATIONS

<b>Gross Area:</b>	3.788 m <sup>2</sup>	40.77 ft <sup>2</sup>	<b>Net Aperture Area:</b>	3.49 m <sup>2</sup>	37.54 ft <sup>2</sup>
<b>Dry Weight:</b>	68.2 kg	150. lb	<b>Fluid Capacity:</b>	147.6 liter	39.0 gal
<b>Test Pressure:</b>	0. KPa	0. psg			

### COLLECTOR MATERIALS

<b>Frame:</b>	Aluminum
<b>Cover (Outer):</b>	Solar Glass
<b>Cover (Inner):</b>	

### Pressure Drop

Flow		ΔP	
m/s	gpm	Pa	in H <sub>2</sub> O
50000.00	792.50	19.79	0.08
100000.00	1585.00	73.2	0.3
200000.00	3170.00	280.90	1.13

<b>Absorber Material:</b>	Tube - Aluminum / Plate - Aluminum	<b>Insulation Side:</b>	Polyisocyanurate
<b>Absorber Coating:</b>	Selective	<b>Insulation Back:</b>	Polyisocyanurate

### TECHNICAL INFORMATION

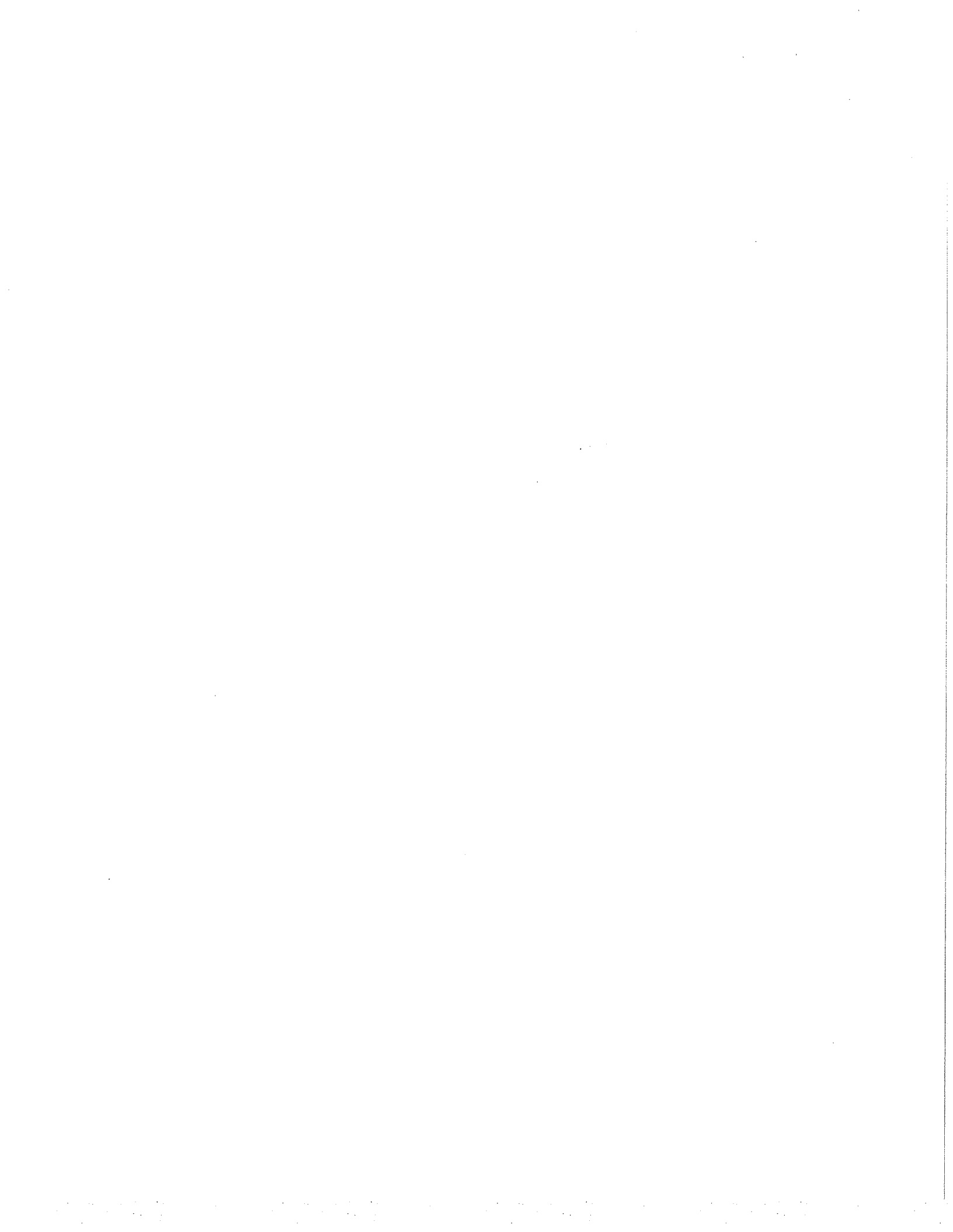
<b>Efficiency Equation [NOTE: Based on gross area and (P)=Ti-Taj]</b>	<b>Y INTERCEPT</b>	<b>SLOPE</b>
<b>SI UNITS:</b> η= 0.599 -6.42370 (P)/I -0.02561 (P) <sup>2</sup> /I	0.607	-7.769 W/m <sup>2</sup> .°C
<b>IP UNITS:</b> η= 0.599 -1.13153 (P)/I -0.00251 (P) <sup>2</sup> /I	0.607	-1.368 Btu/hr.ft <sup>2</sup> .°F

<b>Incident Angle Modifier [(S)=1/cosθ - 1, 0°&lt;θ&lt;=60°]</b>	<b>Model Tested:</b>	2007047A
<b>Kα = 1</b> -0.515 (S) 0.084 (S) <sup>2</sup>	<b>Test Fluid:</b>	Air
<b>Kα = 1</b> -0.43 (S) Linear Fit	<b>Test Flow Rate:</b>	77254 ml/s 1224.48 gpm

REMARKS:

June, 2010  
Certification must be renewed annually, For current status contact:  
**SOLAR RATING & CERTIFICATION CORPORATION**  
c/o FSEC ♦ 1679 Clearlake Road ♦ Cocoa, FL 32922 ♦ (321) 638-1537 ♦ Fax (321) 638-1010

Return to Search



**EMERGENCY CONTACTS**

Call Chemtrec: USA: 1-800-424-9300  
International: (703) 527-3887

**Section 1. Product and Company Information**

Product Name **DuraSil**  
Chemical Family **Silicone**  
Product Use **Adhesive/Sealant**  
MSDS Prepared **10/25/04**  
MSDS Prepared by **Ed Zimmerman**

CHEM LINK INC.  
416 E. Ransom St.  
Kalamazoo Michigan 49007  
U.S.A.  
Tel: 269-344-3330  
Fax: 269-344-3339

**Section 2. Composition / Information on Ingredients****HAZARDOUS INGREDIENTS**

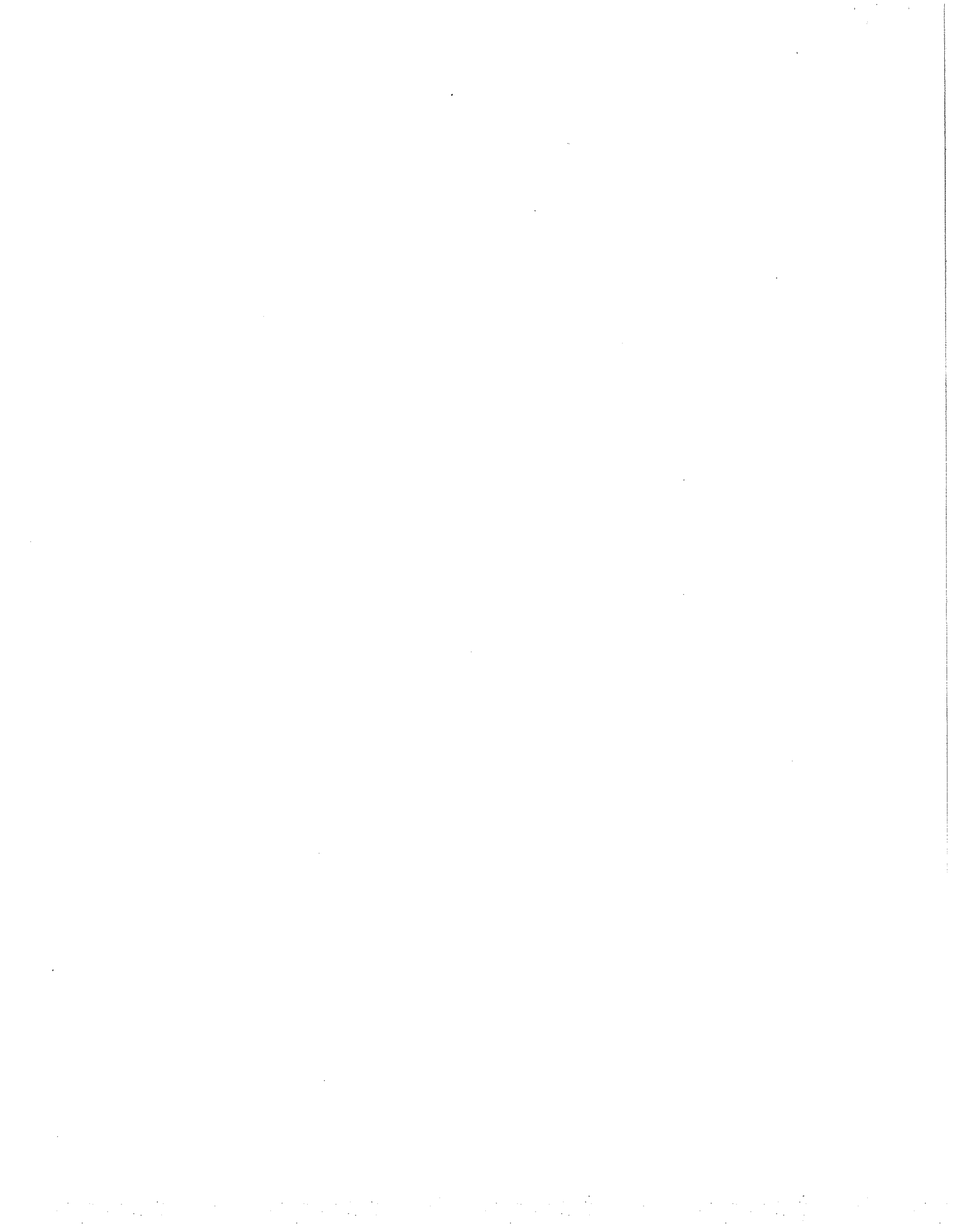
<u>Ingredient Name</u>	<u>CAS Number</u>	<u>Concentration</u>
Methyl-O,O',O"- butan-2-on-trioximo-silane	22984-54-9	1 - 5%

**Section 3. Hazards Identification****EMERGENCY OVERVIEW**Human Effects and Symptoms of Exposure

Routes of Entry – Skin contact, Skin absorption, Inhalation, Eye.  
Acute Eye Contact – Direct contact can cause severe irritation. May cause damage or burns.  
Acute Skin Contact – Direct contact can cause irritation. May cause an allergic skin reaction.  
Skin Absorption – May be absorbed through the skin  
Acute Inhalation – May cause respiratory tract irritation. May cause narcotic effects.  
Acute Ingestion – May be harmful if ingested, not a likely route of entry.  
Chronic Effects of exposure –  
Medical Conditions Aggravated by exposure – Preexisting skin and eye disorders may be aggravated by direct contact to this product.  
Carcinogenicity – There are no components in this product that are listed as a carcinogen by NTP, IARC, ACGIH or OSHA.

**Section 4. First Aid Measures**

First Aid For Eyes – Flush with large amounts of water for at least 15 minutes. Consult a physician if ill effects or irritation occurs.  
First Aid For Skin – Immediately wipe away excess material, use waterless hand cleaner as much of the remaining material as possible, then wash with soap and water. Seek medical attention if irritation or redness and swelling occurs.  
First Aid for Inhalation – If irritation, headache, nausea or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists.  
First Aid For Ingestion – Give several glasses of water but do not induce vomiting. Consult a physician.



**Section 5. Fire Fighting Measures**

Special Fire Fighting Instructions – None. Full emergency equipment with self – contained breathing apparatus and full protective clothing should be worn by firefighters.  
Extinguishing Media – AFFF alcohol compatible foam, CO<sub>2</sub> Dry Chemical..  
Unusual Fire and Explosion Hazards – None. This product is not considered flammable.  
Flashpoint – 250° F (121.1° C)  
Upper Flammable Limit – Not applicable.  
Lower Flammable Limit – Not applicable.  
Autoignition temperature – Not applicable.  
Sensitivity to Impact – Not applicable.  
Sensitivity to Static Discharge – Not applicable.  
Hazardous Combustion Products – Thermal decomposition may produce toxic fumes of Carbon Monoxide, Carbon dioxide, Formaldehyde, Silicone dioxide, 2-butanone, Butanone-2-oxime and Nitrogen oxide.

**Section 6. Accidental release measures**

Personal Precautions – Use personal protection recommended in section 8.  
Methods For Cleaning Up – Collect spill with absorbent material such as cardboard allow to cure and place into a container approved for waste disposal.

**Section 7. Handling and Storage**

Handling – Use personal protection recommended in section 8. Avoid eye, skin and clothing contact.  
Storage – Store in a cool dry area (this product polymerizes when in contact with moisture.)

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

Exposure Guidelines – For Butanone- 2-oxime; a hydrolysis byproduct CAS # 96-29-7  
A maximum concentration of 3.0 ppm is recommended.  
Engineering controls – General ventilation  
Personal Protective Equipment:  
Eye Protection – Wear safety glasses or goggles to avoid eye contact.  
Skin Protection – Wear impervious gloves such as vinyl to minimize contact with skin.  
Respiratory Protection – Use a NIOSH approved air-purifying respirator equipped with organic vapor cartridges if overexposure to vapors could occur.  
Work/Hygienic Practices – Avoid contact with eyes and skin. Wash thoroughly after handling and before eating or drinking.

**Section 9. Physical and Chemical Properties**

Physical State.....Paste.(reacts with moisture to become a firm synthetic rubber)  
Odor and appearance .....Aromatic, sweet odor, thick paste of various colors.  
pH.....Not established.  
Specific Gravity.....Varies from color to color. All colors are heavier than water.  
Density.....~ 8.35 lbs/gal.  
Vapor Density (air = 1).....> 1

Last revised 10/25/05





**Section 9. Physical and Chemical Properties (continued)**

Vapor Pressure (mmHg).....Not established.  
Evaporation Rate.....Not Applicable.  
Boiling Point.....Not established.  
Freezing Point.....Not established.  
Coefficient of Water/Oil Distribution...Not established  
Viscosity.....~ 600,000 cP

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**Section 10. Stability and Reactivity**

Stability – Considered Stable.  
Conditions to Avoid – Avoid exposure to moisture, high humidity and temperatures exceeding 90° F during storage.  
Incompatible Materials – Water, moisture.  
Hazardous Decomposition Products – Under the effect of moisture: Butanone- 2-oxime  
Hazardous polymerization – Will not occur.  
Reactivity – Hazardous reaction will not occur.

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**Section 11. Toxicological Information**

Oral –: LD<sub>50</sub> Rat > 2000 mg/kg  
Skin Absorption –LD<sub>50</sub> Rabbit 1000-2000 mg/kg  
Skin Direct contact –. Rabbit Irritant  
Eye Direct contact – Not available  
Inhalation – Result: LC<sub>50</sub> Not available  
Exposure Limits – For Butanone- 2-oxime; a hydrolysis byproduct CAS # 96-29-7  
A maximum concentration of 3.0 ppm is recommended.  
Sensitization – May cause an allergic skin reaction.  
Reproductive Toxicity – No.  
Mutagenicity – No.  
Teratogenicity – No  
Synergistic Products – None.

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**Section 12. Ecological Information**

No known applicable information.

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**Section 13. Disposal Considerations**

If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.  
This product becomes a firm synthetic rubber when cured. Please allow to cure before disposal.

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**Section 14. Transport Information**

Special Shipping Information – None.

DOT – Not regulated.

TDG – Not available.

PIN – Not available.

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**Section 15. Regulatory Information**

OSHA 29 CFR 1910-1200 – Irritant.

TSCA – All components of this product are listed on TSCA Inventory.

CERCLA Reportable Quantity – Not applicable.

SARA Title III:

Section 302 Extremely Hazardous Substances – None.

Section 304 – Not applicable.

Section 311/312 – Immediate (acute) health hazard. Delayed (chronic) health hazard.

Section 313 – None.

RCRA – Refer to section 13.

California Proposition 65 – This product contains no levels of listed substances which the state of

California has found to cause cancer, birth defects or other reproductive harm.

WHIMS Classification – D2B

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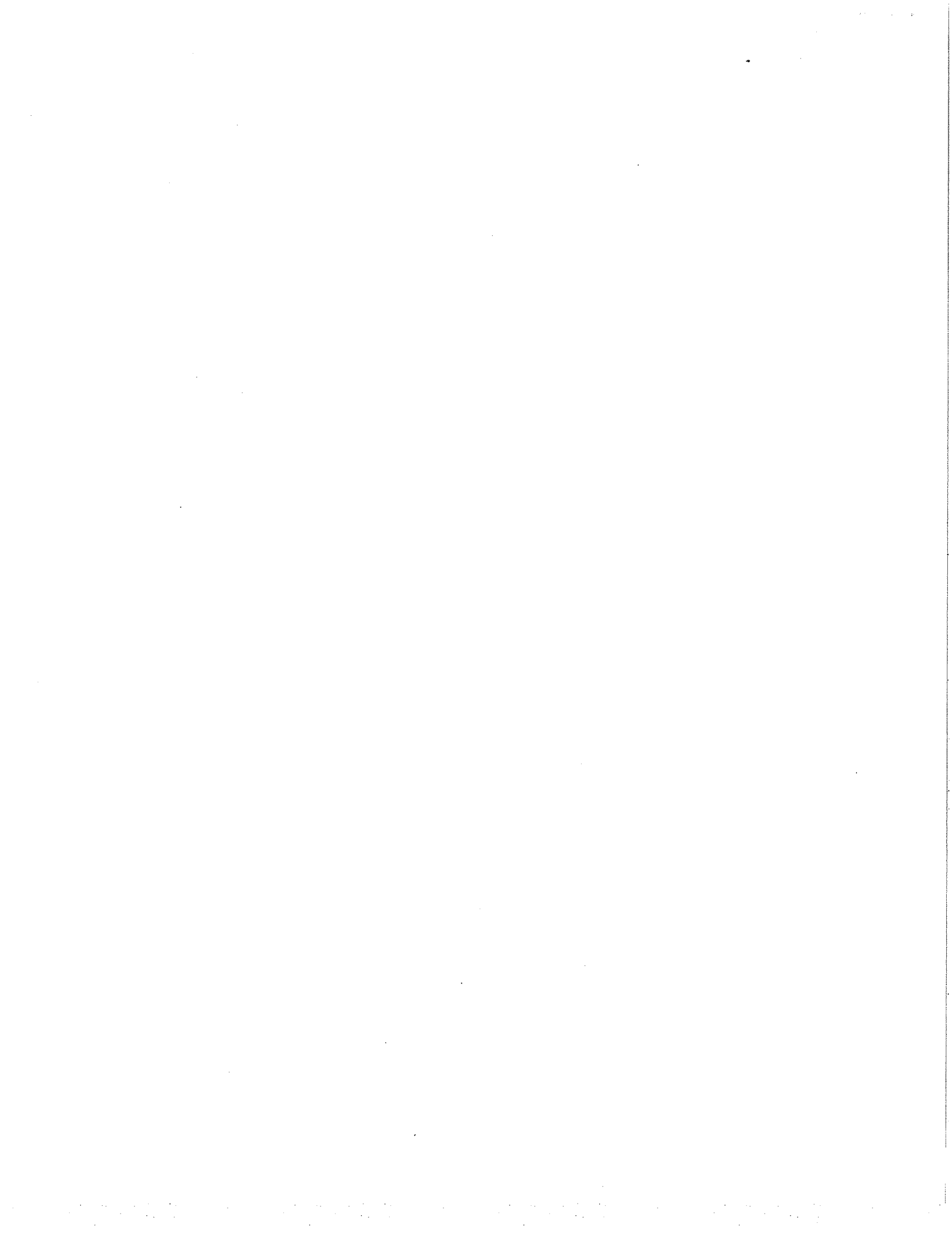
**Section 16. Other Information**

Prepared in accordance with 29 CFR 1910.1200

This Product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

To the best of our knowledge, the information contained herein is accurate. However Chem Link Inc. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be handled with care. Although we have described herein all of the hazards to which we are currently aware, we cannot guarantee that these are the only hazards which exist.

Last revised 10/25/05





# Material Safety Data Sheet

The Dow Chemical Company

Product Name: THERMAX\* 1.00 Inch Insulation Sheathing

Issue Date: 04/12/2006  
Print Date: 01 May 2006

The Dow Chemical Company encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

## 1. Product and Company Identification

**Product Name**  
THERMAX\* 1.00 Inch Insulation Sheathing

**COMPANY IDENTIFICATION**  
The Dow Chemical Company  
2030 Willard H. Dow Center  
Midland, MI 48674  
USA

Customer Information Number: 800-258-2436

**EMERGENCY TELEPHONE NUMBER**  
24-Hour Emergency Contact: 989-636-4400  
Local Emergency Contact: 989-636-4400

## 2. Hazards Identification

### Emergency Overview

Color: Tan  
Physical State: Board  
Odor: Mild  
Hazards of product:

No significant immediate hazards for emergency response are known.

### OSHA Hazard Communication Standard

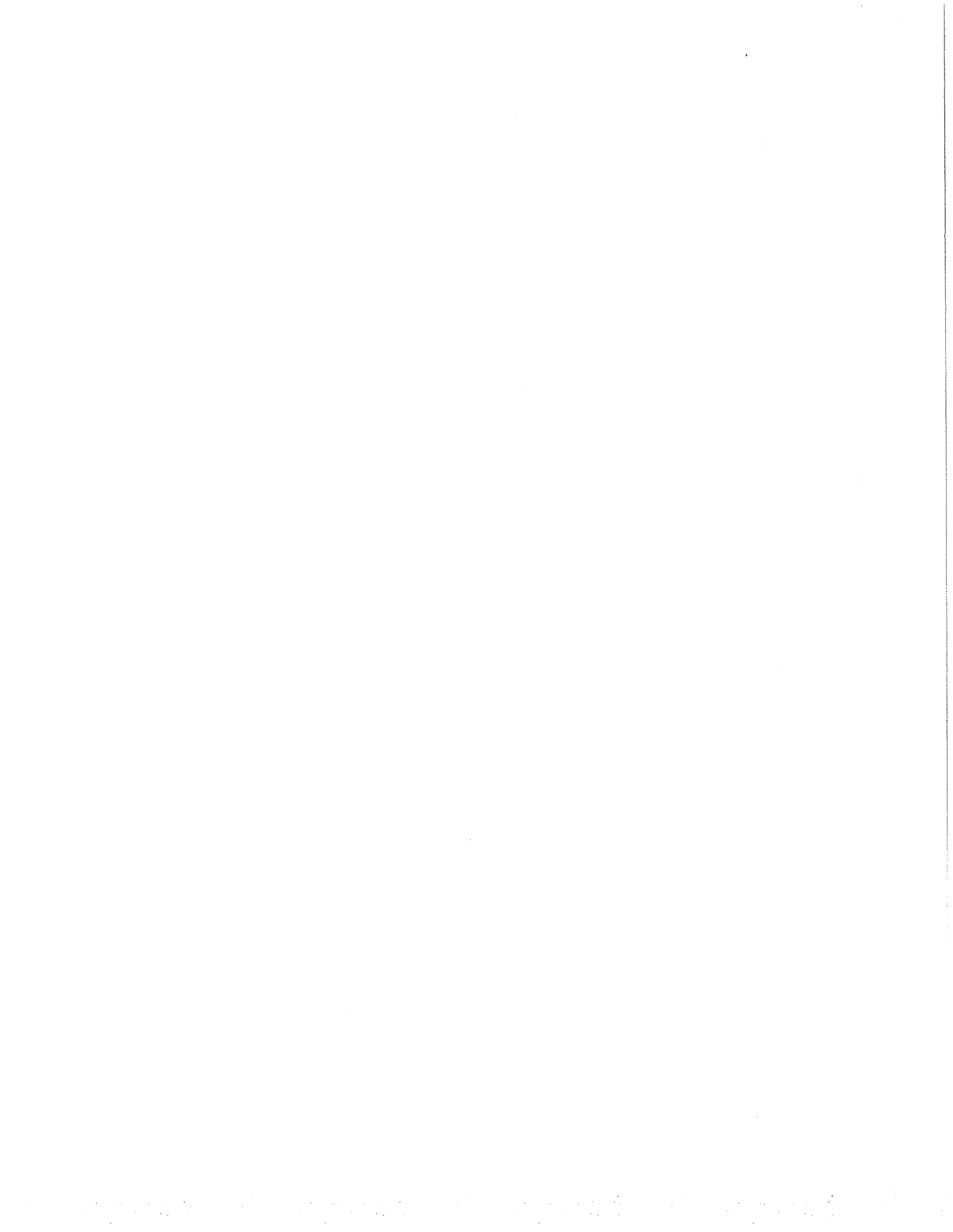
This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### Potential Health Effects

**Eye Contact:** Solid or dust may cause irritation or corneal injury due to mechanical action. Fumes or dust generated from cutting or grinding operations may cause eye irritation.  
**Skin Contact:** May cause itching. May cause skin irritation due to mechanical abrasion.  
**Skin Absorption:** Skin absorption is unlikely due to physical properties.  
**Inhalation:** Dusts or fibers generated in processing may cause irritation of the upper respiratory tract (nose and throat). Fumes or dusts generated from cutting or grinding operations may cause irritation of the upper respiratory tract and lungs. Concentrations of the blowing agents anticipated incidental to

\* Indicates a Trademark





proper handling are expected to be well below those which cause acute inhalation effects and below exposure guidelines.

**Ingestion:** Swallowing is unlikely because of the physical state. Very low toxicity if swallowed.

Harmful effects not anticipated from swallowing small amounts. May cause choking if swallowed.

**Effects of Repeated Exposure:** Repeated exposures to dusts of this material are not anticipated to result in systemic toxicity or permanent lung injury; however, excessive exposures may cause less severe respiratory effects. The data presented are for the following material: The fiberglass in this product is continuous filament fiberglass. Repeated exposure to particles generated by grinding may result in implantation of particles in the skin. For the minor component(s): 1-Bromopropane. May cause central nervous system effects. In animals, effects have been reported on the following organs: Male reproductive organs. Female reproductive organs. Liver. Testing has indicated that normal handling and cutting are unlikely to result in exposure levels of 1-bromopropane sufficient to cause the listed effects.

**Birth Defects/Developmental Effects:** For the minor component(s): 1-Bromopropane. Has been toxic to the fetus in lab animals at doses toxic to the mother. Testing has indicated that normal handling and cutting are unlikely to result in exposure levels of 1-bromopropane sufficient to cause the listed effects.

**Reproductive Effects:** Contains 1-bromopropane which has been shown to interfere with reproduction and fertility in animal studies. Testing has indicated that normal handling and cutting are unlikely to result in exposure levels of 1-bromopropane sufficient to cause the listed effects.

### 3. Composition Information

Component	CAS #	Amount
Modified Polyisocyanurate Rigid Cellular Polymer	Not applicable	> 45.0 %
Aluminum	7429-90-5	> 2.0 - < 50.0 %
Hydrocarbon blowing agent(s)	Not applicable	< 8.0 %
Tris(1-chloro-2-propyl) phosphate	13674-84-5	< 6.0 %
Continuous Filament Glass Fiber	Not applicable	< 5.0 %
1-Bromopropane	106-94-5	< 3.0 %
Rigid modified polyisocyanurate polymer containing a proprietary blowing agent and a continuous glass fiber.		

### 4. First-aid measures

**Eye Contact:** Flush eyes with plenty of water; remove contact lenses after the first 1-2 minutes then continue flushing for several minutes. Only mechanical effects expected. If effects occur, consult a physician, preferably an ophthalmologist.

**Skin Contact:** Wash skin with plenty of water.

**Inhalation:** Move person to fresh air; if effects occur, consult a physician.

**Ingestion:** If swallowed, seek medical attention. May cause gastrointestinal blockage. Do not give laxatives. Do not induce vomiting unless directed to do so by medical personnel.

**Notes to Physician:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

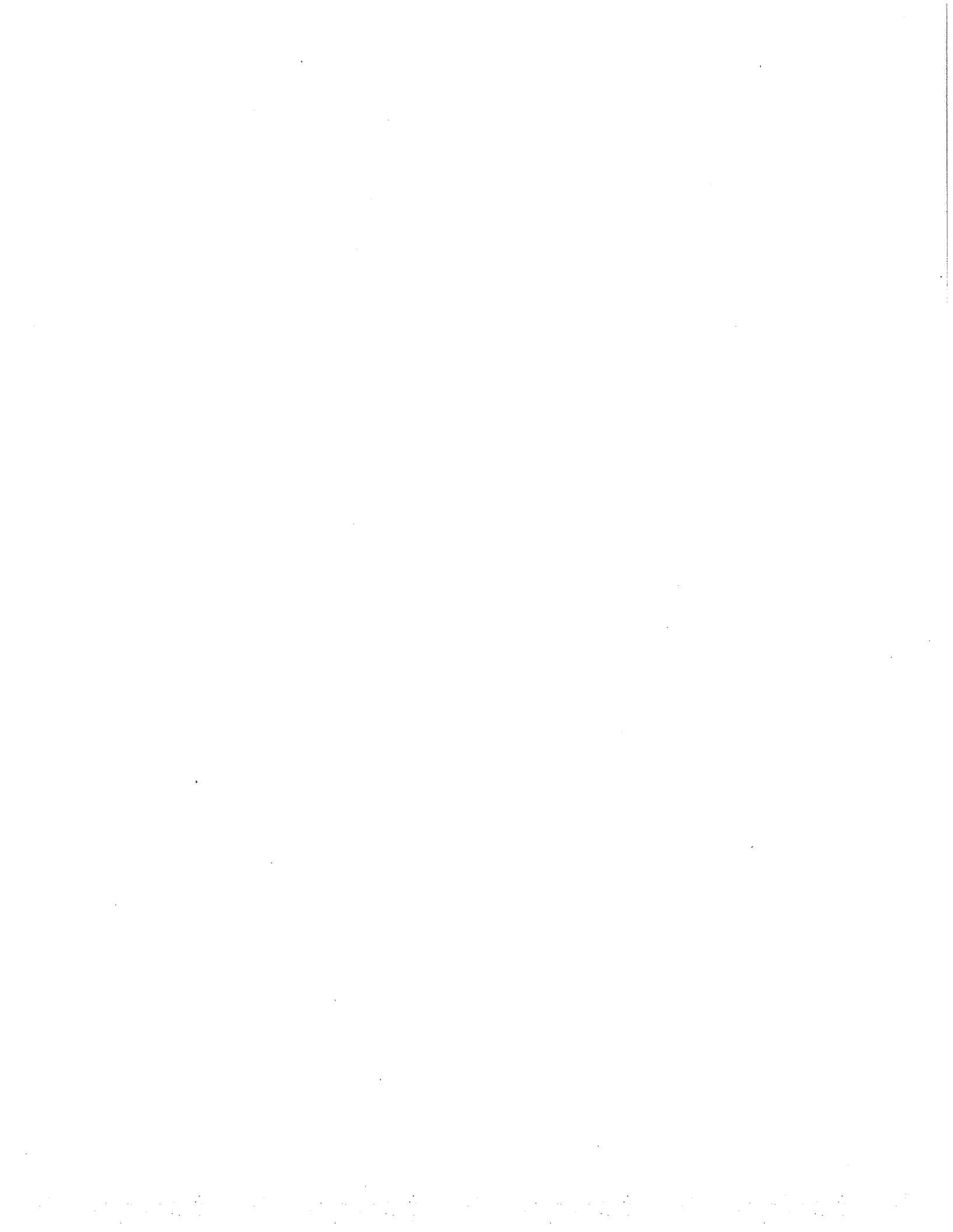
### 5. Fire Fighting Measures

**Extinguishing Media:** Water. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers.

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Soak thoroughly with water to cool and prevent re-ignition. Cool surroundings with water to localize fire zone.

**Special Protective Equipment for Firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers,





boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

**Unusual Fire and Explosion Hazards:** Container may vent and/or rupture due to fire. When product is stored in closed containers, a flammable atmosphere can develop. Mechanical cutting, grinding or sawing can cause formation of dusts. To reduce the potential for dust explosion, do not permit dust to accumulate. This product contains a flame retardant to inhibit accidental ignition from small fire sources. This plastic foam product is combustible and should be protected from flames and other high heat sources. For more information, contact Dow. Dense smoke is emitted when burned without sufficient oxygen.

**Hazardous Combustion Products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. In smoldering or flaming conditions, carbon monoxide, carbon dioxide and carbon are generated. Combustion products may include and are not limited to: Nitrogen oxides. Combustion products may include trace amounts of: Hydrogen cyanide. Hydrogen chloride. Hydrogen bromide. Aromatic hydrocarbons. Studies have shown that the products of combustion of this foam are not more acutely toxic than the products of combustion of common building materials such as wood.

## 6. Accidental Release Measures

**Steps to be Taken if Material is Released or Spilled:** Contain spilled material if possible. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

**Personal Precautions:** Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental Precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

## 7. Handling and Storage

### Handling

**General Handling:** This material is combustible and should not be exposed to flame or other ignition sources. Refer to "EXPOSURE CONTROLS AND PERSONAL PROTECTION", Section 8 of the (M)SDS. No smoking, open flames or sources of ignition in handling and storage area. Fabrication methods which involve cutting into this product may release the blowing agent(s) remaining in the cells. Provide adequate ventilation to assure localized concentrations in release areas are maintained below the lower flammable limit.

**Other Precautions:** Good housekeeping and controlling of dusts are necessary for safe handling of product.

### Storage

Keep in a cool, well-ventilated place. Minimize sources of ignition, such as static build-up, heat, spark or flame. Flammable vapors may accumulate in some storage situations. During shipment, storage, installation and use, this material should not be exposed to flame or other ignition sources.

## 8. Exposure Controls / Personal Protection

### Exposure Limits

Concentrations of the blowing agents anticipated incidental to proper handling are expected to be well below those which cause acute inhalation effects and below exposure guidelines.

### Personal Protection

**Eye/Face Protection:** Eye protection should not be necessary. For fabrication operations safety glasses are recommended. If there is a potential for exposure to particles which could cause eye



discomfort, wear chemical goggles. If exposure to fumes causes eye discomfort, use a full-face air-purifying respirator.

**Skin Protection:** Wear clean, body-covering clothing.

**Hand protection:** Use gloves to protect from mechanical injury. Selection of gloves will depend on the task.

**Respiratory Protection:** Atmospheric levels should be maintained below the exposure guideline. If respiratory irritation is experienced, use an approved air-purifying respirator. The following should be effective types of air-purifying respirators: Particulate filter.

**Ingestion:** No precautions necessary due to the physical properties of the material.

### Engineering Controls

**Ventilation:** Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

## 9. Physical and Chemical Properties

Physical State	Board
Color	Tan
Odor	Mild
Flash Point - Closed Cup	Not applicable
Flammable Limits In Air	Lower: Not applicable Upper: Not applicable
Autoignition Temperature	490 °C (914 °F) <i>ASTM D1929</i>
Vapor Pressure	Not applicable
Boiling Point (760 mmHg)	Not applicable.
Vapor Density (air = 1)	Not applicable
Specific Gravity (H <sub>2</sub> O = 1)	0.02 - 0.05 <i>Literature</i>
Freezing Point	Not applicable
Melting Point	Not applicable
Solubility in Water (by weight)	insoluble in water
pH	Not applicable

## 10. Stability and Reactivity

### Stability/Instability

Thermally stable at typical use temperatures.

**Conditions to Avoid:** Avoid temperatures above 300°C (572°F) Exposure to elevated temperatures can cause product to decompose. Avoid direct sunlight.

**Incompatible Materials:** Avoid contact with oxidizing materials. Avoid contact with: Strong oxidizers.

### Hazardous Polymerization

Will not occur.

### Thermal Decomposition

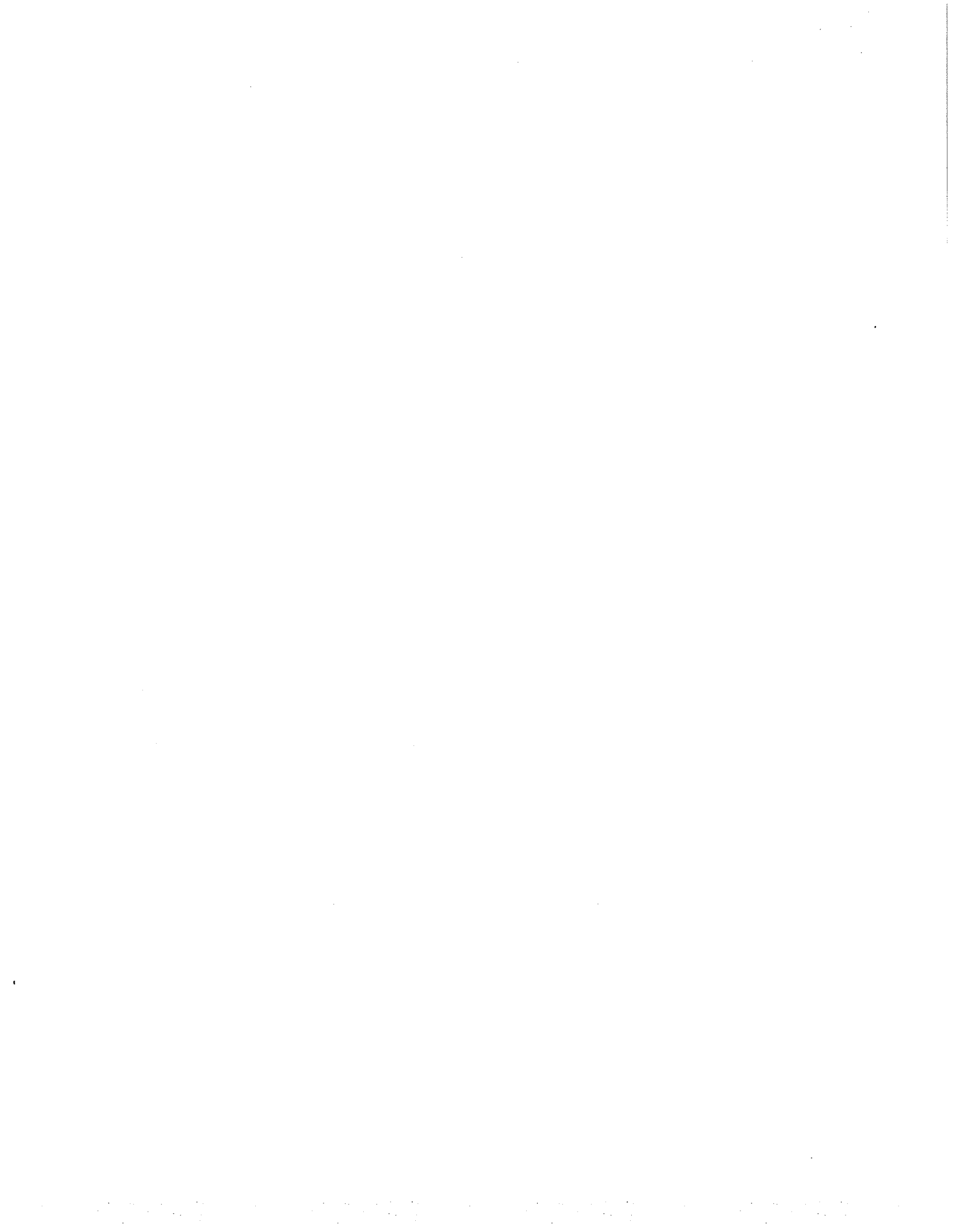
Decomposition products depend upon temperature, air supply and the presence of other materials. Toxic gases are released during decomposition.

## 11. Toxicological Information

### Acute Toxicity

#### Ingestion

Single dose oral LD50 has not been determined.



**Skin Absorption**

The dermal LD50 has not been determined.

**Repeated Dose Toxicity**

Repeated exposures to dusts of this material are not anticipated to result in systemic toxicity or permanent lung injury; however, excessive exposures may cause less severe respiratory effects. The data presented are for the following material: The fiberglass in this product is continuous filament fiberglass. Repeated exposure to particles generated by grinding may result in implantation of particles in the skin. For the minor component(s): 1-Bromopropane. May cause central nervous system effects. In animals, effects have been reported on the following organs: Male reproductive organs. Female reproductive organs. Liver. Testing has indicated that normal handling and cutting are unlikely to result in exposure levels of 1-bromopropane sufficient to cause the listed effects. Additives are encapsulated in the product and are not expected to be released under normal processing conditions or foreseeable emergency.

**Chronic Toxicity and Carcinogenicity**

The fiberglass in this product is continuous filament fiberglass. IARC's evaluation of data on continuous filament fiberglass is that there is inadequate evidence of carcinogenicity in animals and in humans. IARC's classification was based primarily on animal studies involving routes of administration (intratracheal, intrapleural, and intraperitoneal) which have limited relevance to typical exposures anticipated in industrial settings.

**Developmental Toxicity**

For the minor component(s): 1-Bromopropane. Has been toxic to the fetus in lab animals at doses toxic to the mother. Testing has indicated that normal handling and cutting are unlikely to result in exposure levels of 1-bromopropane sufficient to cause the listed effects.

**Reproductive Toxicity**

Contains 1-bromopropane which has been shown to interfere with reproduction and fertility in animal studies. Testing has indicated that normal handling and cutting are unlikely to result in exposure levels of 1-bromopropane sufficient to cause the listed effects.

**Genetic Toxicology**

The data presented are for the following material: The fiberglass in this product is continuous filament fiberglass. In vitro genetic toxicity studies were inconclusive. For the minor component(s) 1-Bromopropane. In vitro genetic toxicity studies were predominantly negative.

## 12. Ecological Information

**CHEMICAL FATE****Movement & Partitioning**

No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000). In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material is expected to float.

**Persistence and Degradability**

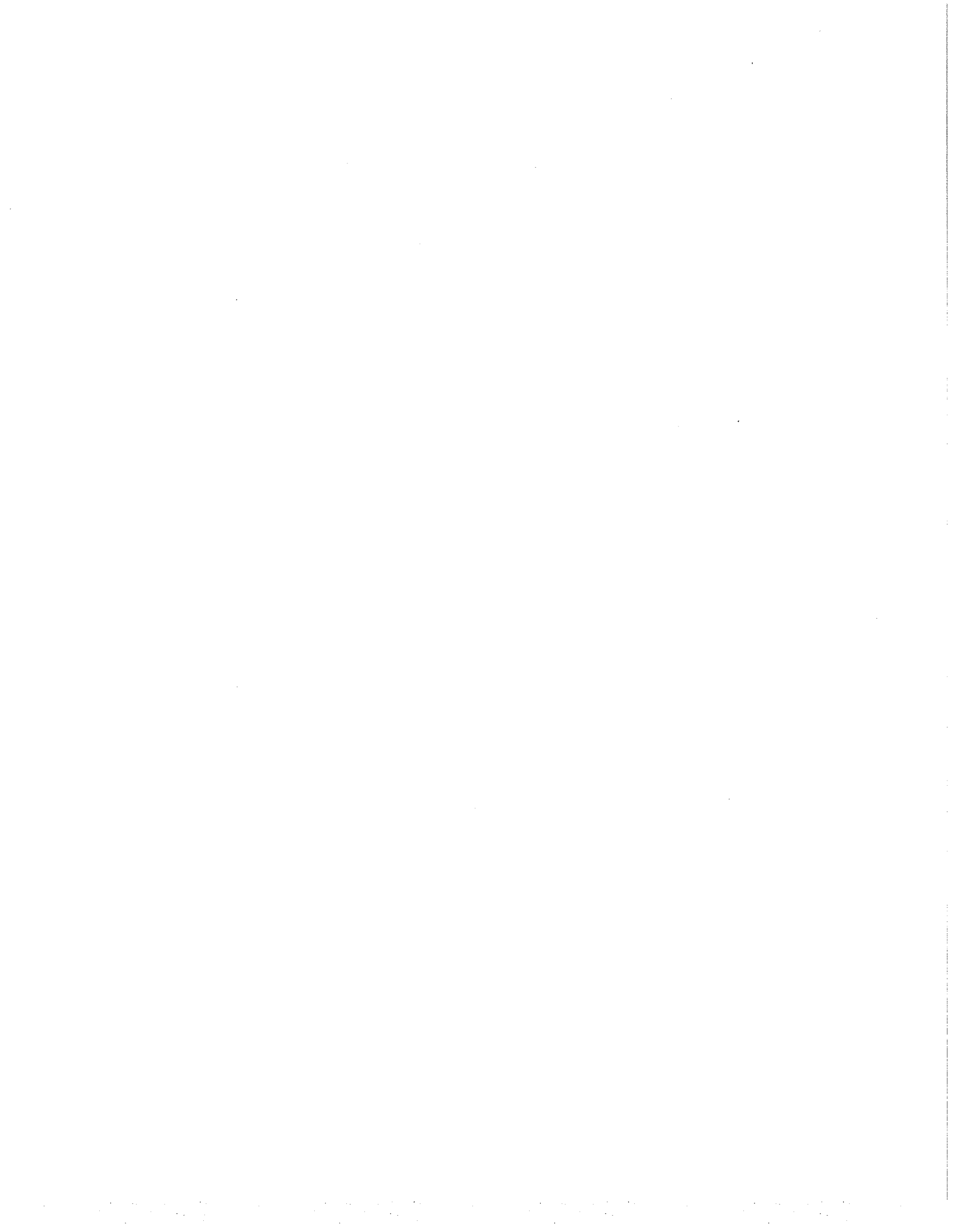
Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected.

**ECOTOXICITY**

Not expected to be acutely toxic to aquatic organisms.

## 13. Disposal Considerations

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. DOW HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING



OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Landfill. Incinerator or other thermal destruction device. As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Telephone Dow's Customer Information Group at 1-800-258-2436 or 1-989-832-1556 (U.S.), or 1-800-331-6451 (Canada) for further details.

## 14. Transport Information

**DOT Non-Bulk**  
NOT REGULATED

**DOT Bulk**  
NOT REGULATED

**IMDG**  
NOT REGULATED

**ICAO/IATA**  
NOT REGULATED

*This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.*

## 15. Regulatory Information

### OSHA Hazard Communication Standard

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

### Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute) Health Hazard	No
Delayed (Chronic) Health Hazard	No
Fire Hazard	No
Reactive Hazard	No
Sudden Release of Pressure Hazard	No

### Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This product contains the following substances which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and which are listed in 40 CFR 372.

Component	CAS #	Amount
Aluminum	7429-90-5	< 50.0 %

### Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:

The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

Component	CAS #	Amount
Aluminum	7429-90-5	< 50.0 %





Hydrocarbon blowing agent(s)	Not applicable	< 8.0 %
1-Bromopropane	106-94-5	< 3.0 %

**Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:**

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

**California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)**

WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

Component	CAS #	Amount
Glass fibres	65997-17-3	< 0.6 %

**California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)**

WARNING: This product contains a chemical(s) known to the State of California to cause birth defects or other reproductive harm.

Component	CAS #	Amount
1-Bromopropane	106-94-5	< 3.0 %

**Toxic Substances Control Act (TSCA)**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

**CEPA - Domestic Substances List (DSL)**

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

## 16. Other Information

**Recommended Uses and Restrictions**

Thermal insulation. For industrial use. Dow recommends that you use this product in a manner consistent with the listed use. If your intended use is not consistent with Dow's stated use, please contact Dow's Customer Information Group.

**Revision**

Identification Number: 82173 / 0000 / Issue Date 04/12/2006 / Version: 7.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

**Legend**

N/A	Not available
W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
DOW IHG	Dow Industrial Hygiene Guideline
WEEL	Workplace Environmental Exposure Level
HAZ DES	Hazard Designation

*The Dow Chemical Company urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product*



*as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.*





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### Limited Warranty

#### Full Ten Year Warranty on the Solar Powered Furnace Series Solar Collectors manufactured by Rural Renewable Energy Alliance

##### **1. Scope of Coverage**

This warranty applies to a new solar collector purchased by the end user. The warranty covers the collector as a whole including all of its components and parts. It extends to the first buyer of the collector for a total of ten (10) years from the date of purchase.

##### **2. Warranty on the Collector**

Rural Renewable Energy Alliance fully warrants its solar collectors to be free from defects in both material and workmanship for a total period of ten (10) years from date of installation acceptance by the original owner. If a failure does occur during the warranty period, Rural Renewable Energy Alliance will provide a new part, or at Rural Renewable Energy Alliance's option, have repaired any part of the collector. A new warranty shall apply to any replacement part, but shall be limited in time to the remainder of the original warranty period. This warranty applies to collectors installed for use as a heat collector to provide energy for use in medium temperature range applications (110 to 210 degrees Fahrenheit) only.

##### **3. Service Labor Responsibility**

This warranty covers labor expenses for removal and reinstallation. Rural Renewable Energy Alliance will pay up to seventy-five dollars (\$75.00) per collector for such expenses.

##### **4. Absorber Surface**

Rural Renewable Energy Alliance warrants fully for a period of ten (10) years against any degradation of the absorber surface which would significantly affect the collector performance.

##### **5. Warranty Exclusions**

A. This Warranty will not apply to the following exclusions:

- 1) To defects or malfunctions resulting from failure to properly install, operate or maintain the collector.
- 2) To damage from abuse, accident, fire, flood, hail, wind or other Acts of Nature.
- 3) To glass breakage.
- 4) To collector failure which occurs due to damage caused by heat transfer fluids.
- 5) If the collector is moved from the original installation location.
- 6) To damage from when the collector is not installed directly against a building.
- 7) To damage from when the collector is installed at any angle other than 90 degrees from the ground, or vertical to the ground.

B. Limitation on Exclusion from Coverage

Conditions that may occur in the normal operation of the collector shall not be invoked by Rural Renewable Energy Alliance to reduce the coverage of this warranty.

##### **6. Other Rights and Remedies**

A. Consequential and Incidental Damages

Rural Renewable Energy Alliance shall not be liable for: (1) Consequential damages to the system in which the improperly functioning collector is installed, (2) Consequential or Incidental damages to the system in which the collector is improperly installed, and (3) Incidental expenses incurred to replace, as necessary, any other obligations or liability in connection with the collector.

B. No Other Expressed Warranties

Unless otherwise explicitly agreed to in writing, it is understood that these are the only written warranties given by Rural Renewable Energy Alliance, and Rural Renewable Energy Alliance neither assumes nor authorizes anyone to assume for it any other obligations or liability in connection with the collector.

C. Implied Warranties

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

D. Right to Arbitration

Any dispute between the buyer and Rural Renewable Energy Alliance, pertaining to this warranty may, at the option of the buyer, be resolved by arbitration in the state installed according to the rules of the American Arbitration Association.

E. Right to Indemnity

Rural Renewable Energy Alliance will fully indemnify a licensed contractor who installs the collector and gives a written warranty in the amount of any liability to the buyer under such warranty to a breach that is also a breach of the Manufacturer's warranty to the buyer.

F. Filing a Claim

All claims should be filed with the contractor or dealer from whom the collector was purchased. If unable to do so, please contact: Rural Renewable Energy Alliance (RREAL), at

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**2330 Dancing Wind Rd SW, Suite #2, Pine River, MN 56474**  
**(218) 587-4753 [www.rreal.org](http://www.rreal.org) [info@rreal.org](mailto:info@rreal.org)**

