EPA's SBAR Panel Outreach Meeting with Small Entity Representatives on Proposed Rulemaking for 1-Bromopropane under TSCA Section 6(a)

Panel Outreach SER Questions for Discussion

For rules that may have a significant economic impact on a substantial number of small entities, the Regulatory Flexibility Act (RFA) requires agencies to evaluate regulatory alternatives that may minimize the burden on small entities expected to be regulated. The RFA notes that the regulatory alternatives must be consistent with the stated objectives of applicable statutes (i.e., TSCA), and suggests significant alternatives such as:

- the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
- the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities;
- the use of performance rather than design standards; and
- an exemption from coverage of the rule, or any part thereof, for such small entities.

To that end, the following informal questions on your work practices and your experiences with this chemical are aimed at guiding our discussion today, and your later written feedback, towards ideas for minimizing the economic impact on your business while remaining within the constraints of TSCA. We are not seeking a structured response on each question; rather, we are interested in any feedback or details you can provide, and hope that these questions let you know what type of information would be most useful as we consider advice from the small entity representatives.

If you are interested in providing this or other information in writing, please see the contact information below.

We ask that you refrain from providing Confidential Business information (CBI) during the discussion or in email to EPA. If you choose to provide CBI, we will provide special instructions.

Contact Information:

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1) Your business:

a. How does your organization use 1-bromopropane (1-BP)? How much 1-BP does your organization use?
b. Can you describe the specific use, the workplace and workplace setting where 1-BP is used?
c. Why does your organization use 1-BP? What function does 1-BP provide?
d. If you use a product containing 1-BP, what product do you use and what is the concentration of 1-BP in the product?

e. Where is your organization in the supply chain? (processor – formulating another product with 1-BP or final user of 1-BP in an application). Do you provide finished product to another small entity or to a large entity?
f. For what industries or applications do you provide products or services? (aerospace, electronics, military, automotive, optics, museums/art restorations, academic, commercial laboratory, consumers, other)
g. For what process are you using 1-BP? (can be more than one, such as cleaning, drying, inspection, etc.)
h. If 1-BP were not available, how would you adjust and what would the impacts be on your business?
i. What are the benefits to your business of 1-BP? Are there specific benefits for small businesses using 1-BP as compared to benefits for larger businesses?

2) Workplace exposure:

a. How many employees, and what fraction of your employees, are exposed to 1-BP, and for how long and how frequently (days/year and hours/day)?
b. If you use a product containing 1-BP, what product do you use and what is the concentration of 1-BP in the product?
c. What work activities result in worker exposure to 1-BP? And what type of exposure (dermal, inhalation)?
d. For each work activity, in what physical state and concentration is 1-BP?
e. Have you taken industrial hygiene monitoring data? If so, what was the typical and high-end exposure to 1-BP?
f. What engineering controls are used to minimize exposure to 1-BP? And how effective are those controls?
    i. Would it be feasible to use additional engineering controls to minimize exposure to 1-BP? If so, what might those engineering controls be?
    ii. What are your experiences with:
        1. Installing or updating ventilation and local exhaust?
        2. Equipment changes to reduce exposures?
    iii. If you have changed or updated your exposure reduction technology or methods, how long did that process take?
g. What administrative controls do you use to minimize exposure to 1-BP? Do you use training to minimize exposure to 1-BP?
h. Is personal protective equipment (PPE) regularly worn by workers to minimize exposure to 1-BP?
    i. If yes, could you provide more information regarding the type of PPE that it is used? And would it be feasible to use PPE that provides a level of protection beyond what you are already using? Do you have experience with air-supplied respirators? Do you have experience with other PPE?
    ii. If not, would it be feasible to have workers wear PPE to minimize their exposure to 1-BP? And what PPE would be feasible for workers to wear?
i. How many employees are located in the same room were the work activities related to 1-BP are taking place but not necessarily handling the 1-BP?

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j. What do you do to comply with OSHA standards for 1-BP?

3) Additional questions for formulators of products containing alternatives to 1-BP:

a. How often do you reformulate your products?
b. What is the typical cost of reformulating your products?
c. What might reformulation costs be if you needed to reformulate your products without 1-BP? For example, costs associated with R&D, testing, capital costs of production changes, packaging, labeling
d. Product relabeling:
   i. How often do you relabel your products?
   ii. What is the typical cost of relabeling?
e. Alternatives:
   i. Do you sell other products that do not contain 1-BP that are designed for the same use or application as the 1-BP product?
      - If yes:
        - What solvent replaces 1-BP in the alternative product?
        - How does the alternative product compare in terms of safety, efficacy, and cost?
      - If not:
        - If you need to reformulate this product with a lower concentration of 1-BP, what would be the implications for the product in terms of cost and efficacy?
        - If you need to reformulate this product without 1-BP, what solvent would replace 1-BP in the alternative product? And how do you think the alternative product would compare in terms of efficacy and cost?
   ii. Is there a subset of uses of your product where using a product formulated without 1-BP would be problematic?

4) Additional questions for degreasing operations:

a. What type of degreasing operation do you use: vapor degreasing, cold cleaning, aerosol/spray degreasing? Is 1-BP used in a degreaser? In a tank? As an aerosol? In a small dispenser such as a squirt bottle?
   i. What items do you degrease with each of the types listed?
   ii. If you use vapor degreasing, what type of system do you use (open-top, closed-loop, in-line, etc.)?
   iii. What size system do you use?
   iv. How significant is degreasing to your business overall?
   v. Do any particular items or grease/soils present special challenges?
b. Current work practices related to degreasing operations:
   i. In your experience, what is the average size of a vapor degreaser used by small businesses, in terms of either solvent air interface or solvent capacity?

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ii. Do the types of vapor degreasers we are considering (open-top, closed-loop, continuous/in-line vapor degreasers) seem representative of those currently in use for small businesses?
iii. Is there any difference in terms of operation time for the different types of vapor degreasers or cold cleaners or aerosol degreasers (in terms of hours per day or days per year)?

c. How old is the cleaning equipment? When did you last update your degreasing system and what was the nature of the update (e.g., new system/machinery, installation of emissions devices, etc.)? What prompted this update?
d. What are the most important factors in degreasing for you (in order): (e.g., precision, speed, impact on the item, safety, total job time, price of materials, client preference, or other factors (please identify))?
e. Why do you use 1-BP rather than somewhat similar solvents like perchloroethylene (PCE) or trichloroethylene (TCE)? Or a blend with *trans*-1,2-dichloroethylene (DCE)? Did you consider using another non-halogenated solvent or aqueous process?
   i. When do you use 1-BP in the process flow in your facility, are you using other cleaning processes as well?
   ii. For example, do you do aqueous cleaning in addition to cleaning with 1-BP? Does aqueous cleaning happen before or after 1-BP?
   iii. Are you using 1-BP on some but not all products?
   iv. If you use one or the other, (aqueous or 1-BP but not both), how did you decide which to use?
f. One possibility is that 1-BP might have to be used in an closed-loop/airless system. Have you looked into such systems?
   i. Are you considering purchasing such equipment?
   ii. If not, what are the constraints?
   iii. Would you use 1-BP in such a system or would you use a different solvent?
g. Have you looked at any alternative processes? Any alternative solvents? Have you looked at product literature?
h. Have you tried using alternative chemicals or methods for degreasing? What were the results?
   i. Please discuss alternative methods for degreasing as well as alternative solvents or equipment in your degreasing process.
   ii. Are you aware of alternative processes or solvents that could be used to achieve similar degreasing results in your operation?
   iii. If you have tried or switched to alternative chemicals or methods, how did they do? how long did that process take? Did it require equipment modifications or new equipment purchases?
i. If 1-BP could no longer be used for degreasing, would the mix of alternative cleaning methods be different for you as a small business compared to larger businesses? For example, are there particular alternatives that are more suitable for small businesses?
j. If you had to change your cleaning process to another somewhat similar solvent like a *trans*-DCE blend, can you give an estimate of costs?
   i. Cleaning agent
   ii. Cleaning equipment

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iii. Process development
iv. Process verification and validation (including lab testing and/or third-party verification), i.e. proving to yourself that the process works
v. Customer certification
vi. Training
vii. Insurance
viii. Permitting
ix. Cleaning agent management (including removal of used cleaning agent)
x. Facilities changes
xi. Documentation
xii. PPE requirements

k. What if you needed to move your cleaning process to a different process like aqueous or another non-similar solvent (modified alcohols, hydrocarbons, alcohols, other blends)? Can you give an estimate of costs?
   i. Cleaning agent
   ii. Cleaning equipment
   iii. Process development
   iv. Process verification and validation (including lab testing and/or third-party verification) (i.e. proving to yourself that the process works))
   v. Customer certification
   vi. Training
   vii. Insurance
   viii. Permitting
   ix. Cleaning agent management (including removal of used cleaning agent)
   x. Facilities changes
   xi. Documentation
   xii. PPE requirements
l. How many vapor degreasers in the U.S. use 1-BP?
m. How much 1-BP is used in the U.S. for vapor degreasing every year?
n. Out of all the vapor degreasers in the U.S., what percentage of those vapor degreasers is using 1-BP versus other solvents (methylene chloride, TCE, PCE, *trans*-DCE blends, other designer solvents)?
o. How much 1-BP does a typical vapor degreasing customer use in a year?

5) Distributors and retailers – consumer uses:

a. How much of your business is supplying products containing 1-BP to consumers?
b. If you could no longer sell products containing 1-BP, how would this impact your business?
c. Do you also sell products designed for the same application or use that do not contain 1-BP?
   i. If yes, what is the relative share of sales for the product(s) containing 1-BP compared to the products that do not contain 1-BP?
d. Are there particular challenges to small business doing distribution of 1-BP products that are different from large distributors?

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6) **Substitutes and alternatives:**
   a. What chemicals or processes have you considered as an alternative to using 1-BP or a product containing 1-BP? Why? How do these chemicals or processes compare to current use containing 1-BP? More specifically:
      i. Do you currently use any alternatives to 1-BP (or product)?
      ii. Did you try to switch to another chemical, product, or process only to switch back? If so, what did you switch to, why did you switch back, and what made you switch in the first place?
      iii. What are the relative advantages and disadvantages of different substitutes and/or processes that you have considered, including in terms of exposure, cost, and hazard?
      iv. Provide specific information related to each substitute chemical, product, or process related to the use of alternative chemicals/products and compare to 1-BP:
         - Identification of alternative chemical/product/process
         - How much of the alternative product/chemical would be needed to perform the same activity
         - Capital costs including new equipment, retrofitting of old equipment, etc. of using the alternative chemical/process, loss of use of existing equipment
         - Number of workers required, amount of worker time required
         - Number of workers exposed
         - Costs associated with transitioning to the alternative chemical (e.g., identifying and testing the alternative chemical/process, production downtime during the transition, lost productivity while learning how to use the alternative efficiently)
         - Process changes required (e.g., additional time to complete task, additional steps, etc.)
         - Energy usage
         - Other operation and maintenance costs (e.g., filters, tank cleanings, etc.)
         - Changes in production or output of operation
         - Releases of alternative chemicals/products
         - Waste and disposal costs associated with alternative chemical/process
         - Changes in your product/service quality
         - Training, medical surveillance, or other employee-related costs
         - Recordkeeping burden/costs
         - Monitoring and testing costs

7) **Regulatory options**
   a. Which of the regulatory options presented today would you recommend?
   b. With respect to the Exiting Chemical Exposure Limit (ECEL) as a regulatory option, based on your experience, do you have additional information regarding:
      i. How feasible is to implement an ECEL at the 0.05 ppm level?
      ii. How much time you would need to be able to comply with an ECEL of 0.05ppm?
      iii. Monitoring of 1-BP at your workplace, including methods and detection levels.
      iv. Are there other factors that would impact the implementation of an ECEL of 0.05 ppm in your workplace?

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c. Can you identify any regulatory alternatives that would allow the agency to accomplish its regulatory objectives while minimizing the burden on small entities or to your particular small business?
d. Cost estimates: In your experience, are the cost estimates reasonably representative? Do you have additional information to improve the cost estimates?
e. Can you think of ways to add flexibility to this rulemaking for your small businesses?
f. How do you learn about EPA regulations and what you should do to comply?
g. What is the best way to reach out to members of your industry?

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