

**ECONOMIC AND FISCAL IMPACT STATEMENT
(REGULATIONS AND ORDERS)**

STD. 39F (REV. 12/2013)

ECONOMIC IMPACT STATEMENT

DEPARTMENT NAME Dept. of Toxic Substances Control	CONTACT PERSON Andrew King	EMAIL ADDRESS Andrew.King@dtsc.ca.gov	TELEPHONE NUMBER 916-323-3492
DESCRIPTIVE TITLE FROM NOTICE REGISTER OR FORM 400 SAFER CONSUMER PRODUCTS – Listing Paint or Varnish Strippers Containing Methylene Chloride			NOTICE FILE NUMBER Z-2017-1107-10

A. ESTIMATED PRIVATE SECTOR COST IMPACTS *Include calculations and assumptions in the rulemaking record.*

1. Check the appropriate box(es) below to indicate whether this regulation:

- a. Impacts business and/or employees
- b. Impacts small businesses
- c. Impacts jobs or occupations
- d. Impacts California competitiveness
- e. Imposes reporting requirements
- f. Imposes prescriptive instead of performance
- g. Impacts individuals
- h. None of the above (Explain below):

*If any box in Items 1 a through g is checked, complete this Economic Impact Statement.
If box in Item 1.h. is checked, complete the Fiscal Impact Statement as appropriate.*

2. The Dept. of Toxic Substances Control estimates that the economic impact of this regulation (which includes the fiscal impact) is:
(Agency/Department)

- Below \$10 million
- Between \$10 and \$25 million
- Between \$25 and \$50 million
- Over \$50 million *[If the economic impact is over \$50 million, agencies are required to submit a Standardized Regulatory Impact Assessment as specified in Government Code Section 11346.3(c)]*

3. Enter the total number of businesses impacted: <=24 (See attach)

Describe the types of businesses (Include nonprofits): Manufacturers [See attachment]

Enter the number or percentage of total businesses impacted that are small businesses: <=7 (See attach)

4. Enter the number of businesses that will be created: Indeterminate eliminated: 0

Explain: See attachment

5. Indicate the geographic extent of impacts: Statewide
 Local or regional (List areas): _____

6. Enter the number of jobs created: Indeterminate and eliminated: Indeterminate

Describe the types of jobs or occupations impacted: See attachment

7. Will the regulation affect the ability of California businesses to compete with other states by making it more costly to produce goods or services here? YES NO

If YES, explain briefly: The regulation will apply to any manufacturer selling paint or varnish strippers containing methylene chloride in California. There are three potentially impacted manufacturers that are headquartered in California.

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ECONOMIC IMPACT STATEMENT (CONTINUED)**B. ESTIMATED COSTS** *Include calculations and assumptions in the rulemaking record.*1. What are the total statewide dollar costs that businesses and individuals may incur to comply with this regulation over its lifetime? \$ \$2.37M - \$6.40Ma. Initial costs for a small business: \$ \$112,800 - \$304,800 Annual ongoing costs: \$ 0 Years: 2017-2018b. Initial costs for a typical business: \$ \$112,800 - \$304,800 Annual ongoing costs: \$ 0 Years: 2017-2018c. Initial costs for an individual: \$ 0 Annual ongoing costs: \$ 0 Years: N/Ad. Describe other economic costs that may occur: None anticipated2. If multiple industries are impacted, enter the share of total costs for each industry: N/A3. If the regulation imposes reporting requirements, enter the annual costs a typical business may incur to comply with these requirements.
Include the dollar costs to do programming, record keeping, reporting, and other paperwork, whether or not the paperwork must be submitted. \$ 0 (See attach.)4. Will this regulation directly impact housing costs? YES NO

If YES, enter the annual dollar cost per housing unit: \$ _____

Number of units: _____

5. Are there comparable Federal regulations? YES NOExplain the need for State regulation given the existence or absence of Federal regulations: See attachmentEnter any additional costs to businesses and/or individuals that may be due to State - Federal differences: \$ 0**C. ESTIMATED BENEFITS** *Estimation of the dollar value of benefits is not specifically required by rulemaking law, but encouraged.*1. Briefly summarize the benefits of the regulation, which may include among others, the health and welfare of California residents, worker safety and the State's environment: See attachment2. Are the benefits the result of: specific statutory requirements, or goals developed by the agency based on broad statutory authority?Explain: The statute seeks to minimize adverse health effects, evaluate safer alternatives and promote safer products.3. What are the total statewide benefits from this regulation over its lifetime? \$ Indeterminate4. Briefly describe any expansion of businesses currently doing business within the State of California that would result from this regulation: Potential job expansion in consulting, chemical research and product development, collaboration with university researchers, marketing, consumer education.**D. ALTERNATIVES TO THE REGULATION** *Include calculations and assumptions in the rulemaking record. Estimation of the dollar value of benefits is not specifically required by rulemaking law, but encouraged.*1. List alternatives considered and describe them below. If no alternatives were considered, explain why not: See attachment

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ECONOMIC IMPACT STATEMENT (CONTINUED)

2. Summarize the total statewide costs and benefits from this regulation and each alternative considered:

Regulation: Benefit: \$ Indeterminate Cost: \$ \$2.37M - \$6.40M

Alternative 1: Benefit: \$ Indeterminate Cost: \$ Indeterminate

Alternative 2: Benefit: \$ Indeterminate Cost: \$ Indeterminate

3. Briefly discuss any quantification issues that are relevant to a comparison of estimated costs and benefits for this regulation or alternatives: See attachment - Section 5(B), 5(C), and 5(D)

4. Rulemaking law requires agencies to consider performance standards as an alternative, if a regulation mandates the use of specific technologies or equipment, or prescribes specific actions or procedures. Were performance standards considered to lower compliance costs? YES NO

Explain: See attachment

E. MAJOR REGULATIONS *Include calculations and assumptions in the rulemaking record.*

California Environmental Protection Agency (Cal/EPA) boards, offices and departments are required to submit the following (per Health and Safety Code section 57005). Otherwise, skip to E4.

1. Will the estimated costs of this regulation to California business enterprises exceed \$10 million? YES NO

*If YES, complete E2. and E3
If NO, skip to E4*

2. Briefly describe each alternative, or combination of alternatives, for which a cost-effectiveness analysis was performed:

Alternative 1: _____
Alternative 2: _____

(Attach additional pages for other alternatives)

3. For the regulation, and each alternative just described, enter the estimated total cost and overall cost-effectiveness ratio:

Regulation: Total Cost \$ _____ Cost-effectiveness ratio: \$ _____

Alternative 1: Total Cost \$ _____ Cost-effectiveness ratio: \$ _____

Alternative 2: Total Cost \$ _____ Cost-effectiveness ratio: \$ _____

4. Will the regulation subject to OAL review have an estimated economic impact to business enterprises and individuals located in or doing business in California exceeding \$50 million in any 12-month period between the date the major regulation is estimated to be filed with the Secretary of State through 12 months after the major regulation is estimated to be fully implemented?

YES NO

If YES, agencies are required to submit a Standardized Regulatory Impact Assessment (SRIA) as specified in Government Code Section 11346.3(c) and to include the SRIA in the Initial Statement of Reasons.

5. Briefly describe the following:

The increase or decrease of investment in the State: Possible increase in business investments in chemical research and development of safer consumer products; increase in consulting and marketing business opportunities.

The incentive for innovation in products, materials or processes: DTSC expects this regulation will stimulate innovation in the development of alternative chemicals and safer consumer products.

The benefits of the regulations, including, but not limited to, benefits to the health, safety, and welfare of California residents, worker safety, and the state's environment and quality of life, among any other benefits identified by the agency: _____

See attachment - Section 4 and 5(C)

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FISCAL IMPACT STATEMENT

A. FISCAL EFFECT ON LOCAL GOVERNMENT *Indicate appropriate boxes 1 through 6 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*

1. Additional expenditures in the current State Fiscal Year which are reimbursable by the State. (Approximate)
(Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

\$ _____

a. Funding provided in _____
Budget Act of _____ or Chapter _____, Statutes of _____

b. Funding will be requested in the Governor's Budget Act of _____
Fiscal Year: _____

2. Additional expenditures in the current State Fiscal Year which are NOT reimbursable by the State. (Approximate)
(Pursuant to Section 6 of Article XIII B of the California Constitution and Sections 17500 et seq. of the Government Code).

\$ _____

Check reason(s) this regulation is not reimbursable and provide the appropriate information:

a. Implements the Federal mandate contained in _____

b. Implements the court mandate set forth by the _____ Court.

Case of: _____ vs. _____

c. Implements a mandate of the people of this State expressed in their approval of Proposition No. _____

Date of Election: _____

d. Issued only in response to a specific request from affected local entity(s).

Local entity(s) affected: _____

e. Will be fully financed from the fees, revenue, etc. from: _____

Authorized by Section: _____ of the _____ Code;

f. Provides for savings to each affected unit of local government which will, at a minimum, offset any additional costs to each;

g. Creates, eliminates, or changes the penalty for a new crime or infraction contained in _____

3. Annual Savings. (approximate)

\$ _____

4. No additional costs or savings. This regulation makes only technical, non-substantive or clarifying changes to current law regulations.

5. No fiscal impact exists. This regulation does not affect any local entity or program.

6. Other. Explain _____

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FISCAL IMPACT STATEMENT (CONTINUED)

B. FISCAL EFFECT ON STATE GOVERNMENT *Indicate appropriate boxes 1 through 4 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*

1. Additional expenditures in the current State Fiscal Year. (Approximate)

\$ 736K - \$2.6M

It is anticipated that State agencies will:

a. Absorb these additional costs within their existing budgets and resources.

b. Increase the currently authorized budget level for the _____ Fiscal Year

2. Savings in the current State Fiscal Year. (Approximate)

\$ _____

3. No fiscal impact exists. This regulation does not affect any State agency or program.

4. Other. Explain _____

C. FISCAL EFFECT ON FEDERAL FUNDING OF STATE PROGRAMS *Indicate appropriate boxes 1 through 4 and attach calculations and assumptions of fiscal impact for the current year and two subsequent Fiscal Years.*

1. Additional expenditures in the current State Fiscal Year. (Approximate)

\$ _____

2. Savings in the current State Fiscal Year. (Approximate)

\$ _____

3. No fiscal impact exists. This regulation does not affect any federally funded State agency or program.

4. Other. Explain _____

FISCAL OFFICER SIGNATURE

DATE



9.17.17

The signature attests that the agency has completed the STD. 399 according to the instructions in SAM sections 6601-6616, and understands the impacts of the proposed rulemaking. State boards, offices, or departments not under an Agency Secretary must have the form signed by the highest ranking official in the organization.

AGENCY SECRETARY

DATE



10-13-17

Finance approval and signature is required when SAM sections 6601-6616 require completion of Fiscal Impact Statement in the STD. 399.

DEPARTMENT OF FINANCE PROGRAM BUDGET MANAGER

DATE



SAFER CONSUMER PRODUCTS REGULATIONS: LISTING PAINT OR VARNISH STRIPPERS CONTAINING METHYLENE CHLORIDE AS A PRIORITY PRODUCT

Attachment to the Economic and Fiscal Impact Statement (Std. 399)

Section 1. Summary of Regulatory Impacts

The Department of Toxic Substances Control (DTSC) prepared this economic impact analysis to support the designation of *Paint or Varnish Strippers Containing Methylene Chloride* as a Priority Product under the Safer Consumer Products (SCP) regulations (Chapter 55 of Division 4.5 of Title 22 of the California Code of Regulations (commencing with sections 69501)). For the purposes of this regulation, DTSC defines “paint or varnish strippers containing methylene chloride” as any product that is placed into commerce in California that contains methylene chloride (dichloromethane), and that may be marketed, sold, or offered for sale as a chemical substance designed to break down paint, varnish, or any other surface coating to facilitate its removal from any surface. Such products may be designed for indoor or outdoor use.

Methylene chloride is highly volatile and vapors can concentrate in the breathing zone of applicators during the normal use of paint or varnish strippers. Methylene chloride is an acute toxin and inhalation exposure during the use of paint or varnish strippers can result in severe injury or death. Methylene chloride is also recognized as a neurotoxin and is known to the State of California to cause cancer. The wide use of this product creates potential for significant adverse health effects from exposure to methylene chloride by California workers and consumers.

DTSC determined that there are 24 or fewer manufacturers of paint or varnish strippers containing methylene chloride located throughout the United States that could be impacted by this proposed regulation. DTSC estimates the cumulative costs could range from \$2,371,200 to \$6,403,200 for all affected manufacturers to fulfill the SCP regulatory requirements to submit a Priority Product Notification and Alternatives Analysis (AA) Report.

This economic impact assessment is based on the assumption that manufacturers of paint or varnish strippers containing methylene chloride will comply fully with the SCP regulations by submitting Priority Product Notifications and AA Reports to DTSC by the dates specified in regulation. Manufacturers of paint or varnish strippers containing methylene chloride that do not submit AA Reports must: 1) remove methylene chloride from their paint or varnish stripper products, 2) replace methylene chloride with a different chemical that meets certain regulatory requirements for those products, or 3) stop selling paint or varnish strippers containing methylene chloride in California. If a manufacturer fails to comply with the regulation and

DTSC provides notice of this noncompliance, the requirements for importers, retailers, or assemblers, as applicable, call for importers to cease placing the product into the stream of commerce in California, and for retailers and assemblers to cease ordering the product.

Section 2. Safer Consumer Products Regulatory Requirement to Conduct Alternatives Analysis

Following the designation of paint or varnish strippers containing methylene chloride as a Priority Product, manufacturers must submit a Priority Product Notification and conduct an AA to determine if there are any safer alternatives to the use of methylene chloride in paint or varnish strippers. In lieu of submitting an AA Report, a manufacturer could also remove methylene chloride from its paint or varnish strippers, replace methylene chloride in its products, or stop selling their stripping products with methylene chloride in California.

In general, the AA is a two-stage process that takes into account many facets of product manufacturing, including process engineering, environmental management, financial analysis, and research and development. In the first stage of the AA process, manufacturers are required to identify the legal, functional, and performance requirements of the Priority Product and the Chemical of Concern, and use this information to identify an array of alternatives to consider. When the first stage is completed, the manufacturer documents the findings in a Preliminary AA Report and submits this report to DTSC. During the second stage of the AA process, the manufacturer compares the Priority Product with possible alternatives using a more in-depth analysis and considers additional factors, including life cycle and economic impacts. This information is submitted to DTSC in the Final AA Report.

If a manufacturer determines there are no functionally acceptable or technically feasible alternatives to the use of the Chemical of Concern in the Priority Product, it may submit an Abridged AA Report, in lieu of submitting the Preliminary and Final AA Reports required by the two-stage process. The Abridged AA process requires manufacturers to document their screening of potential alternatives. Because the Abridged AA process allows for the continued sale and use of the Priority Product, Abridged AA Reports must include an implementation plan to carry out the following Regulatory Responses, which require:

- Providing product safety information to consumers, including information on chemical hazards, safe handling and disposal procedures, and other information needed to protect public health or the environment; and
- Advancing green chemistry and green engineering principles, including initiating research and development projects or funding challenge grants to design safer alternatives or improve performance, lower cost, or increase market penetration of existing safer alternatives.

Following submission of an Abridged AA Report or Final AA Report, DTSC will invite the public to comment on the report. Manufacturers are required to address all public comments identified by DTSC. DTSC will then initiate a departmental review of the AA Report. DTSC must evaluate each report on its own merit, taking into consideration each manufacturer's unique conclusions and proposals. Because AA Reports and proposed Regulatory Responses address the manufacturers' specific business situations, DTSC cannot predetermine the actions that manufacturers would need to take, either individually or collectively, to meet the goals of protecting people and the environment and advancing green chemistry or green engineering principles. Despite uncertainty surrounding individual AA Reports, DTSC's response to these submissions will maximize the use of alternatives of least concern and give preference to Regulatory Responses that provide the greatest level of inherent protection to people and the environment.

Section 3. Anticipated Economic Impacts to Manufacturers

Number of Potentially Impacted Manufacturers

DTSC relied on a variety of sources to estimate the number of manufacturers potentially impacted by this proposed regulation. DTSC searched manufacturers' websites and Safety Data Sheets (SDS) for paint or varnish strippers containing methylene chloride. DTSC conducted a similar search on the websites of home improvement retail stores. DTSC also analyzed a list of manufacturers that was provided by Dun & Bradstreet (a private data vendor). Finally, DTSC asked two prominent manufacturers of paint or varnish strippers, as well as an industry trade group representative, to provide an independent estimate of the number of manufacturers potentially impacted by this proposed regulation.

Based on the data collected from these sources, DTSC estimates there are 24 or fewer manufacturers of paint or varnish strippers containing methylene chloride that would be impacted by this proposed regulation. Three of the 24 potentially affected manufacturers are headquartered in California.

This is a conservative estimate in that DTSC was unable to confirm that all 24 of these entities are in fact manufacturers and not assemblers; assemblers are not required to comply with the regulations in the same manner as manufacturers. Additionally, manufacturers and the industry alliance estimated that there are fewer than 24 U.S.-based manufacturers of paint and varnish strippers containing methylene chloride.

Priority Product Notification Cost Estimates

Each manufacturer is required to submit a Priority Product Notification to DTSC via the online Safer Consumer Products Information Management System (CalSAFER) that includes business contact information and the type, brand name(s), and product name(s) of paint or varnish strippers that contain methylene chloride. This is a one-time requirement.

DTSC estimates that manufacturers would require a maximum of 16 hours to prepare a Priority Product Notification at a cost of approximately \$50/hour. DTSC estimates that each manufacturer could spend up to \$800 to complete the required notification with maximum total costs for the estimated 24 or fewer affected manufacturers to be \$19,200.

AA Cost Estimates

Manufacturers and an industry alliance representative indicated that at least four manufacturers plan on forming a consortium and submitting a combined AA. This group also indicated they cannot determine whether they will complete an Abridged AA or a two-stage AA until they complete the necessary research for the first stage of the AA process. Given the uncertainty around whether manufacturers will submit an Abridged AA Report or a two-stage AA Report, DTSC modeled both scenarios.

Since there are no precedent regulations of this nature and no previously conducted AAs to use as guides for this economic analysis, DTSC derived the estimated costs of an AA utilizing authoritative sources of information. These included the Interstate Chemicals Clearinghouse (IC2) Alternative Assessment guide,¹ the State of Washington's Alternative Assessment Guide for Small and Medium Businesses,² University of California-Santa Barbara's Life Cycle Analysis³ and Pilot AA studies,⁴ as well as guidance from the European Chemicals Agency.⁵ DTSC's estimated costs to individual manufacturers based on these sources range from \$48,000 to \$78,000 for an Abridged AA (Table 1a, row 1) and \$86,000 to \$161,000 for a two-stage AA (Table 1b, row 1).

DTSC solicited manufacturers of paint or varnish strippers containing methylene chloride for their expected costs of submitting an AA. Those interviewed indicated that they expect the first stage of an AA to cost from \$100,000 to \$135,000 (Table 1a, row 2). This estimate does not include the second stage of a two-stage AA or responses to public comments and DTSC reviews.

DTSC also conducted similar interviews with manufacturers of other potential Priority Products. Manufacturers of these other products estimated that it would cost from \$50,000 to \$150,000

¹ Interstate Chemicals Clearinghouse (IC2) (2013). *Interstate Chemicals Clearinghouse Alternatives Assessment Guide*, Interstate Chemicals Clearinghouse, November 2013, version 1.0, 176 pages. Accessed online at http://www.newmoa.org/prevention/ic2/IC2_AA_Guide-Version_1.pdf on 4/13/2017.

² State of Washington (2015) *Alternative Assessment Guide for Small and Medium Businesses*, January 2015, Publication number 15-04-002. Accessed online at <https://fortress.wa.gov/ecy/publications/documents/1504002.pdf> on 4/13/2017.

³ University of California-Santa Barbara (2015) *Framework for Initial Life Cycle Screening in Alternatives Analysis*.

⁴ University of California-Santa Barbara (2016) *Pilot Study to Support Alternatives Analysis*.

⁵ European Chemicals Agency (ECHA). *Guidance on the Preparation of an Application for Authorisation*. Version 1. January 2011. Accessed online at https://echa.europa.eu/documents/10162/23036412/authorisation_application_en.pdf/6571a0df-9480-4508-98e1-ff807a80e3a9.

to prepare an Abridged AA Report (Table 1a, row 3) or \$120,000 to \$250,000 to prepare a two-stage AA Report (Table 1b, row 3).

Table 1a. Estimated costs to individual manufacturers to conduct an Abridged AA

Source	Cost	
	Low	High
Estimates based on AA Pilot Studies and Guides from Other Agencies	\$48,000	\$78,000
Manufacturer Estimates (Paint or Varnish Strippers)	\$100,000	\$135,000
Manufacturer Estimates (Other Proposed Priority Products)	\$50,000	\$150,000
Combined Estimate to Conduct Abridged AA	\$100,000	\$150,000

Table 1b. Estimated costs to individual manufacturers to conduct a two-stage AA

Source	Cost	
	Low	High
Estimates based on AA Pilot Studies and Guides from Other Agencies	\$86,000	\$161,000
Manufacturer Estimates (Paint or Varnish Strippers)	N/A	
Manufacturer Estimates (Other Proposed Priority Products)	\$120,000	\$250,000
Combined Estimate to Conduct Two-stage AA	\$120,000	\$250,000

A manufacturer may incur additional costs if DTSC determines that its Abridged AA Report or two-stage AA Report does not meet SCP regulatory requirements. If a manufacturer completes a two-stage AA, it may have to respond to DTSC in two phases: once after it submits its Preliminary AA Report (which includes first stage AA findings) and again after it submits its Final AA Report (which includes findings from the second stage). DTSC must make Abridged AA Reports and Final AA Reports available for public review and comment. Following DTSC's review of the comments received, the manufacturers may be required to submit an AA Report Addendum to DTSC to address issues identified by DTSC after the comment period. Some manufacturers may respond adequately to the SCP regulatory requirements and will not be asked to revise their Abridged AA Report or two-stage AA Report. However, given the fact that no manufacturer has ever prepared such a report, it is likely that most manufacturers will incur costs to prepare additional information or revise their Abridged AA or Preliminary and Final AA Reports. DTSC estimates that these costs could range from \$12,000 to \$32,000 for an Abridged AA Report (Table 2a) or \$19,000 to \$54,000 for a two-stage AA Report (Table 2b).

Table 2a. Estimated Costs to Respond to Reviews of an Abridged AA

Manufacturer Responses	Cost	
	Low	High
Respond to DTSC Reviews (Abridged AA)	\$7,000	\$22,000
Prepare Abridged AA Report Addendum to respond to Public Comments	\$5,000	\$10,000
Total	\$12,000	\$32,000

Table 2b. Estimated Costs to Respond to Reviews of a Two-stage AA

Manufacturer Responses	Cost	
	Low	High
Respond to DTSC Reviews (Preliminary AA)	\$7,000	\$22,000
Respond to DTSC Reviews (Final AA)	\$7,000	\$22,000
Prepare Final AA Report Addendum to respond to Public Comments	\$5,000	\$10,000
Total	\$19,000	\$54,000

Total Estimated Cost of Regulation

Given the high degree of uncertainty in the estimated cost of compliance with the AA requirements, DTSC opted to use the higher range of estimates provided by manufacturers of proposed Priority Products (\$100,000 to \$150,000 for an Abridged AA (Table 1a) and \$120,000 to \$250,000 for a two-stage AA (Table 1b)). When combined with DTSC's cost estimates for responding to DTSC's AA Report review and the estimated cost to submit a Priority Product Notification, the estimated total cost for an individual manufacturer to comply with these requirements ranges from \$112,800 (Table 3a) to \$304,800 (Table 3b).

DTSC estimates the cumulative cost for all affected manufacturers of paint or varnish strippers with methylene chloride to submit Priority Product Notifications and AA Reports and to respond to DTSC's reviews to be from \$2,371,200 to \$6,403,200 (Tables 3a and 3b, respectively). The lower estimate (\$2,371,200) assumes that 24 manufacturers submit Priority Product Notifications, four of those 24 manufacturers submit a combined Abridged AA Report, and the remaining 20 manufacturers submit individual Abridged AA Reports. The higher estimate (\$6,403,200) assumes that 24 manufacturers submit Priority Product Notifications, four of those 24 submit a combined two-stage AA Report, and the remaining 20 manufacturers submit individual two-stage AA Reports.

The primary sources of uncertainty in this estimate are: the number of manufacturers that are selling paint or varnish strippers with methylene chloride in California, how many manufacturers will form a consortium to submit a combined AA Report, the cost to an individual manufacturer for submitting an AA Report, and whether any of the 24 identified entities are not manufacturers but assemblers (which would not be required to submit a Priority Product Notification or conduct an AA under SCP regulations).

Table 3a: Estimated Total Costs to Manufacturers - Abridged AA

Manufacturer Costs	Priority Product Notification		AA		Respond to Reviews of AA		Total	
	Min	Max	Min	Max	Min	Max	Min	Max
Individual	\$800	\$800	\$100,000	\$150,000	\$12,000	\$32,000	\$112,800	\$182,800
Industry-Wide	\$19,200	\$19,200	\$2,100,000	\$3,150,000	\$252,000	\$672,000	\$2,371,200	\$3,841,200

Table 3b: Estimated Total Costs to Manufacturers - Two-stage AA

Manufacturer Costs	Priority Product Notification		AA		Respond to Reviews of AA		Total	
	Min	Max	Min	Max	Min	Max	Min	Max
Individual	\$800	\$800	\$120,000	\$250,000	\$19,000	\$54,000	\$139,800	\$304,800
Industry-Wide	\$19,200	\$19,200	\$2,520,000	\$5,250,000	\$399,000	\$1,134,000	\$2,938,200	\$6,403,200

Section 4. Potential Economic Benefits to Consumers, Workers, and Businesses

The primary goal of SCP regulations is to protect public health by reducing exposures to potentially harmful chemicals. By making paint or varnish strippers safer, employers may realize financial benefits from reduced costs associated with workplace-related injuries and compensation claims, and may benefit from increased worker productivity due to a reduction in the number of days lost due to illness. Workers and consumers may also benefit from lower incidence of debilitating chronic conditions, reduced medical costs, and reduced loss of paid work due to illness.

The AA process benefits paint removal contractors, their employees, and consumers because it requires manufacturers to provide DTSC with data and analysis to determine whether safer alternatives to the use of the Chemical of Concern in the Priority Product exist. DTSC will review each AA Report on its own merits, taking into consideration each manufacturer's unique conclusions and proposals. DTSC cannot predetermine the actions that paint or varnish manufacturers would need to take, either individually or collectively, to meet the goals of protecting human health and the environment and advance green chemistry or green engineering principles. Despite this uncertainty, DTSC will maximize the use of alternatives of least concern and give preference to Regulatory Responses that provide the greatest level of inherent protection to people and the environment. DTSC will also make AA Reports publicly available so contractors, employees, and consumers can make more informed decisions when considering the purchase or use of paint or varnish strippers containing methylene chloride.

While it is impossible to accurately predict or quantify the full range of potential benefits associated with the implementation of this proposed regulation, DTSC anticipates that implementing required Regulatory Responses and researching safer alternatives to the use of paint or varnish strippers containing methylene chloride could benefit California's businesses and workers. These benefits could include expanded business and employment opportunities in the fields of regulatory and technical consulting, chemical and engineering research, and worker and consumer safety education.

Section 5. Economic Impact Statement (Std. 399) – Sections with Additional Information

The following information supplements statements in the Economic and Fiscal Impact form (Std. 399) for the rulemaking proposal titled "SAFER CONSUMER PRODUCTS REGULATIONS – Listing Paint or Varnish Strippers Containing Methylene Chloride as a Priority Product." The section headings and numbers shown below correspond to sections in the Economic Impact Statement portion of the Std. 399 form that require additional information.

A. ESTIMATED PRIVATE SECTOR COST IMPACTS

3. Number of Businesses Impacted

- **Total Number of Businesses Impacted**

Through internet research and consultation with industry representatives, DTSC estimates there are 24 or fewer manufacturers of paint or varnish strippers containing methylene chloride that would be required to comply with this regulation. Three of those 24 manufacturers are headquartered in California.

- **Types of Businesses**

These businesses are manufacturers of paint or varnish strippers containing methylene chloride that sell their products in California.

- **Number or Percentage of Total Businesses Impacted that are Small Businesses**

Under California Rulemaking Law, Government Code section 11342.610, a small business is defined as being both independently owned and operated and not dominant in its field of operation. California Government Code 11346.3(b)(4) adds an additional criterion to the small business definition: a small business must have fewer than 100 employees. Many of the potentially impacted manufacturers are non-public companies and do not publish information about employee size, ownership, or management of their organizations. DTSC relied on Dun & Bradstreet to provide estimates of employee size for each potentially impacted manufacturer. Based on this information and the limited information that is available on company websites,

DTSC estimates that seven of the 24 potentially impacted manufacturers are small businesses. Two of these seven small businesses are headquartered in California.

4. Number of Businesses Created or Eliminated

DTSC determined that this proposal is unlikely to result in the elimination of any paint or varnish stripper manufacturers. DTSC anticipates zero ongoing costs associated with this proposed regulation. DTSC expects that the one-time costs associated with the Priority Product Notifications and AA Reports are low enough for all potentially impacted manufacturers to comply without eliminating their businesses. Manufacturers can significantly reduce their individual costs of compliance by submitting a combined AA Report through a consortium.

The AA process requires manufacturers to provide DTSC with data and analysis to determine whether safer alternatives to the use of the Chemical of Concern in the Priority Product exist. DTSC reviews each AA Report on its own merits, taking into consideration each manufacturer's unique conclusions and proposals. Because each manufacturer's proposal will address its specific business situation, DTSC cannot predetermine the actions that paint or varnish manufacturers would need to take, either individually or collectively, to meet the goals of protecting people and the environment and advance green chemistry or green engineering principles. While it is impossible to accurately predict or quantify the full range of potential benefits associated with the implementation of this proposed regulation, DTSC anticipates that this proposed regulation could potentially lead to increased business opportunities in consulting services, chemical and material science research and support, product research and design, marketing, and the development of consumer product safety information and training materials.

6. Number of Jobs Created or Eliminated

The requirement to submit Priority Product Notifications and Abridged AA Reports or two-stage AA Reports is not likely to result in the elimination of jobs in California. Although most of the manufacturers of paint or varnish strippers containing methylene chloride are not located in California, statewide job expansion could occur in consulting services, product research and design, chemical and material science research and support, marketing and the development of consumer product safety information and training materials. (See section A.4.)

B. ESTIMATED COSTS

Lifetime Total Statewide Dollar Costs to Manufacturers

For these calculations, DTSC assumed the following:

- Twenty-four or fewer manufacturers producing paint or varnish strippers containing methylene chloride will be impacted (with three headquartered in California);
- Seven of the potentially impacted manufacturers are small businesses (with two headquartered in California);
- Each manufacturer will submit a one-time Priority Product Notification informing DTSC that it produces paint or varnish strippers containing methylene chloride;
- Four manufacturers will submit a combined AA Report. This report will be either an Abridged AA Report or a two-stage AA Report. The remaining affected manufacturers will individually submit either Abridged AA Reports or two-stage AA Reports;
- Costs to submit Priority Product Notifications are the same for all manufacturers regardless of size;
- Costs to submit individual AA Reports are the same for all manufacturers regardless of size;
- The manufacturers are required to submit an AA Report once. The amount of time to complete an AA is approximately one year following adoption of the proposed regulation, which includes any Report Addendums or responses to DTSC reviews.

If more than four manufacturers choose to submit an AA Report prepared by a consortium or trade association, then total industry-wide costs may be lower than estimated. Since this is a new process for manufacturers as well as DTSC, it is also possible that DTSC has underestimated the costs to conduct an AA and to respond to DTSC through the review process.

1.a. Initial Costs for a Small Business

DTSC estimates that it will take each manufacturer a maximum of 16 hours at \$50/hour to complete a Priority Product Notification, or a total of \$800. DTSC estimates that the cost to each manufacturer for the Priority Product Notification, AA report, and responding to DTSC's AA report review will be \$112,800 to \$182,800 for an Abridged AA, and \$139,800 to \$304,800 for a two-stage AA, regardless of manufacturer size. DTSC expects costs to individual manufacturers to be lower if they form a consortium and submit a combined AA. These are one-time notification and reporting requirements that manufacturers are expected to complete within one year of adoption of the proposed regulation; therefore, there are no ongoing costs.

1.b. Initial Costs for a Typical Business

See 1.a. DTSC estimates that costs for each business will be the same regardless of size.

1.c. Initial Costs for an Individual

There are no anticipated costs to individuals.

3. Annual Costs

There are no annual ongoing reporting costs because Priority Product Notifications, Abridged AA Reports and two-stage AA Reports are one-time reporting requirements.

5. Explanation for the Need for State Regulation Given the Existence or Absence of Federal Regulations

The SCP program established a unique approach to regulating chemicals of concern in consumer products that allows DTSC to take a precautionary approach to protecting people and the environment when other regulatory programs or protective standards are lacking. There are no equivalent federal regulations that require product manufacturers to determine if the chemical in their product is necessary and if there is a safer alternative and to take steps to protect human health and the environment.

This proposed regulation is an important effort to protect the health of California workers and consumers from harmful exposures to methylene chloride in paint or varnish strippers, which are widely available for use in the workplace and at home. The federal Occupational Safety and Health Administration and the California Division of Occupational Safety and Health established Permissible Exposure Limits for methylene chloride that employers must observe. Employers typically rely on training and the use of personal protective equipment (PPE) to achieve worker protection. The effectiveness of training and use of PPE is highly dependent on an employee's experience and supervision, as well as a range of physical and environmental variables. Additionally, these worker protection standards do not apply to consumers or sole proprietors. Household consumers represent a potentially large population who are often uninformed of the hazards posed by methylene chloride and are less likely than professionals to take steps to protect themselves.

This proposed regulation is an important supplement to current state and federal exposure standards. The United States Environmental Protection Agency (U.S. EPA) proposed a rule under the Toxic Substances Control Act (TSCA) section 6(a) on January 19, 2017, that would prohibit the manufacture (including import), processing, and distribution in commerce of methylene chloride for consumer and most types of commercial paint and coating removal. DTSC supports U.S. EPA's efforts to regulate methylene chloride under TSCA. Historically, U.S. EPA has not used its regulatory authority under TSCA to restrict the use of chemicals. Recent changes to TSCA through the Frank R. Lautenberg Chemical Safety for the 21st Century Act have given U.S. EPA expanded authority and guidance to evaluate and regulate chemicals based on a risk-

based safety standard. Despite these changes, and in light of recent deaths attributed to methylene chloride-based strippers, DTSC is moving forward with this rulemaking effort. DTSC will remain engaged in U.S. EPA's efforts to regulate methylene chloride and will evaluate any duplication or conflict with that regulation if and when it becomes finalized.

C. ESTIMATED BENEFITS

1. Benefits of the Regulation

The primary goal of SCP regulations is to protect public health by reducing exposures to potentially harmful chemicals. By listing paint or varnish strippers containing methylene chloride as a Priority Product, DTSC sets in motion a strategy to reduce human exposure to methylene chloride during use of this product. A reduction in airborne methylene chloride means healthier air quality and safer workplaces and homes. A reduction in exposure to methylene chloride could reduce workplace-related illness and injury and the number of work days lost to health effects associated with methylene chloride exposure. The development of safer alternatives benefits California workers, consumers, and employers.

DTSC cannot pre-determine the alternatives that each manufacturer will propose; therefore, it is impossible to accurately predict or quantify the full range of potential benefits associated with their development. DTSC will maximize the use of alternatives of least concern and give preference to those that provide the greatest level of inherent protection. In general, economic benefits to California workers and business owners may include expanded employment opportunities in the fields of consulting, worker and consumer education, and marketing. Additional benefits may accrue because of increased research and product development collaboration between manufacturers and California-based research laboratories. Institutional and corporate financial support of chemical and material science programs focused on developing safer paint or varnish strippers could advance the field. These research initiatives could provide manufacturers with employees that are highly skilled in the research and design of products for newly emerging global markets.

D. ALTERNATIVES TO THE REGULATION

DTSC analysis found no reasonable alternative to the selected alternative (the proposed regulation) would be either more effective in carrying out the purpose for which the action is proposed or would be less burdensome to affected private persons and equally effective in achieving the purposes of the regulation in a manner that ensures full compliance with the law being implemented or made specific.

1. Alternatives Considered

DTSC considered the following alternatives to the proposed regulation:

Regulation: List paint or varnish strippers containing methylene chloride as a Priority Product:

- This option was selected due to potential serious acute and chronic health effects from exposure to methylene chloride in paint or varnish strippers.
- 1) Alternative 1: Wait for U.S. EPA to regulate the use of paint stripper containing methylene chloride.
 - U.S. EPA identified methylene chloride as a work plan chemical for assessment under TSCA in 2012, and proposed a rule to regulate the use of methylene chloride in paint strippers in January 2017. DTSC decided to move forward with this proposed rulemaking because U.S. EPA's rule has only recently been proposed, and the scope of the rule may change before it is final. DTSC's proposed rule will regulate methylene chloride under a regulatory framework that is fundamentally different from TSCA. For these reasons, and in light of recent deaths attributed to the improper use of methylene chloride-based strippers, DTSC has chosen to move forward with its proposed rulemaking so workers and consumers can benefit from this innovative process.
 - 2) Alternative 2: List paint or varnish strippers containing methylene chloride or N-methyl pyrrolidone (NMP) as a Priority Product.
 - NMP (CAS number 872-50-4) is a widely used chemical alternative to methylene chloride in paint strippers. NMP is a known reproductive and developmental toxicant and a skin and eye irritant. Moreover, NMP is on DTSC's list of Candidate Chemicals due to reproductive and developmental toxicity. However, paint strippers containing methylene chloride are part of the proposed initial Priority Products List. Since NMP does not meet the condition specified in California Code of Regulations, title 22, section 69503.6(a), DTSC may not name paint or varnish strippers containing NMP as part of the Initial Priority Products List. Paint or varnish strippers containing NMP may be listed as a Priority Product in the future.

Cost Analysis for Alternatives

DTSC was unable to estimate the costs of Alternative 1 since the scope of U.S. EPA's proposed rule may significantly change before it is made final. DTSC did not attempt to quantify costs or benefits associated with Alternative 2 because paint or varnish

strippers containing NMP could not be included on the initial Priority Products List pursuant to the SCP regulations.

4. Performance Standards

The proposed regulation defines the Priority Product and lists the hazard traits and toxicological endpoints that satisfy the exposure and adverse impacts criteria outlined in the SCP regulations. As such, the proposed regulation does not mandate the use of specific technologies or equipment, or prescribe specific actions or procedures. The notification requirements described above are included in the SCP regulations.

E. MAJOR REGULATIONS

DTSC estimates that additional costs to manufacturers associated with the proposed requirements for paint or varnish strippers containing methylene chloride will be significantly less than the threshold amounts for a "major" regulation cited in Section 11346 of the Government Code and Section 57005 of the Health and Safety Code. Accordingly, DTSC is not required to prepare, and submit for approval, a "Standardized Regulatory Impact Assessment" because the estimated costs incurred by manufacturers of paint or varnish strippers containing methylene chloride will be less than \$50 million in the first year. Consequently, DTSC is not required to conduct macro-economic modeling for the proposed rulemaking pursuant to Section 11346 of the Government Code. Similarly, the estimated additional costs for the proposed regulation will be less than the \$10 million Cal/EPA-specific threshold pursuant to Section 57005 of the Health and Safety Code.

Section 6. Fiscal Impact Statement (Std. 399) – Additional Information

The following information supplements statements in the Economic and Fiscal Impact form (Std. 399) for the rulemaking proposal titled "SAFER CONSUMER PRODUCTS REGULATIONS – Listing Paint or Varnish Strippers Containing Methylene Chloride as a Priority Product." The section headings and numbers shown below correspond to sections in the Fiscal Impact Statement portion of the Std. 399 form that require additional information.

B. FISCAL EFFECTS ON STATE GOVERNMENT

1.a. Additional Expenditures in the Current State Fiscal Year.

DTSC will absorb additional costs associated with reviewing Notifications, Abridged AA Reports, or two-stage AA Reports submitted by manufacturers of paint or varnish strippers containing methylene chloride by reallocating staff to this new task. As required by the SCP regulations, DTSC must publish the final AA Guide before DTSC adopts any Priority Products in regulation. DTSC closed the final public comment period for the AA Guide on February 3, 2017, and published the final document on June 14, 2017. Staff that participated in the development of the AA Guide will be

reallocated to the new task of reviewing Notifications, Abridged AA Reports, or two-stage AA Reports submitted by manufacturers of paint or varnish strippers containing methylene chloride.

DTSC estimates that the total fiscal costs to state government for reviewing all Notifications, Abridged AA Reports, and two-stage AA reports submitted by manufacturers will range from \$735,798 to \$2,608,242. The lower estimate (\$735,798) assumes that 24 manufacturers submit Priority Product Notifications, four of those 24 manufacturers submit a combined Abridged AA Report, and the remaining 20 manufacturers submit individual Abridged AA Reports. The higher estimate (\$2,608,242) assumes that 24 manufacturers submit Priority Product Notifications, four of those 24 submit a combined two-stage AA Report, and the remaining 20 manufacturers submit individual two-stage AA Reports. All estimates assume that DTSC will have to review revisions to Abridged AA or two-stage AA Reports. Estimates include costs of review by a variety of technical staff including environmental scientists, toxicologists, engineers, economists and attorneys.

Table 4: Estimated Fiscal Cost to State Government

	Abridged AA		Two-stage AA	
	Low	High	Low	High
Individual Notification and AA	\$35,038	\$66,516	\$64,856	\$124,202
Total (All Notifications and AAs)	\$735,798	\$1,396,836	\$1,361,976	\$2,608,242

The primary sources of uncertainty in this estimate are: the number of manufacturers that are selling paint or varnish strippers with methylene chloride in California, how many manufacturers will form a consortium to submit a combined AA Report, the number of hours it will take DTSC to review an individual Notification, Abridged AA, or two-stage AA report, and whether any of the 24 identified entities are not manufacturers but assemblers (which would not be required to submit a Priority Product Notification or conduct an AA under SCP regulations).