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APPORTIONMENT OF TORT LIABILITY AMONG MULTIPLE POLLUTERS IN THE U.S.A.

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Summary

One of the challenges facing our complex society is to allocate the responsibility for injuries with multiple sources. Products enter the stream of commerce that do not have a single manufacturer or seller; pollutants are emitted from many sources simultaneously. There are increasing numbers of lawsuits over injuries caused by a chemical, drug or other substance that was definitely produced and sold by many companies. The biggest issue in most such cases has been whether there is a sufficient link between exposure and injury. In a few cases, this has been fairly certain. However, even where causation is highly unsettled, victims have often been able to win substantial judgments or settlements. The 1986 settlement of the suits in San Jose, California against Fairchild, alleging teratogenic effects from a leak of TCA and DCE, is an example of this. Where causation appears sufficiently probable, the victim will seek to recover monies from every possible defendant.

Introduction

Where many sources are emitting a pollutant, and it is not possible to follow the environmental pathway of the pollutant, the source(s) of any individual's exposure may be indeterminable.[1] Similarly, where a drug or chemical has been sold generically, the actual producer may be untraceable.

The trailblazers in multiple producer litigation have been the victims of DES (diethyl stilbesterol–a miscarriage preventative), a synthetic estrogen used by millions of patients since 1941. The legal principles established over the past decade by DES victims provide the precedent for future litigation over hazardous wastes. DES is associated with clear-cell adenocarcinoma of the vagina in young women exposed to the drug *in utero*. This link was discovered in 1971,

[1]For example, suppose n companies located over a wide area pollute the soil. P, situated near company 1, may be drinking groundwater polluted by 1,2,... or n of the companies. Hydrogeological knowledge is inadequate to track the fate of each company's emissions. Some of the companies may not have contributed to P's exposure at all. This is distinguishable from the situation where X polluters all deposit toxicant Y into a lake, and P eats from the lake. Since all X contributed to the single source of risk, all are liable to P.

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and the FDA contraindicated the drug in pregnancy at that time. DES may also be responsible for other health problems.

DES was marketed generically; over 200 companies were involved in its manufacture and distribution.[2] Even if the DES victim can identify the physician or pharmacy where her mother received the drug, she is usually unable to determine which manufacturer produced the DES used in that prescription. Thus DES daughters had no chance to prevail in a conventional products liability action, which requires identification of the manufacturer. They pressed for an expansion of the doctrines applicable to other multiple defendant torts: concert of action, alternative liability, and enterprise liability, which were not originally intended to cover health risk situations.

Tort liability formulations

Concert of action is a true joint tort, where persons agree on a course of parallel conduct, and support each other in the commission of a tort. The paradigm is a drag race, where all participants are jointly liable for the entire resulting injury. Alternative liability applies to independent negligent actors, such as the famous hunters who simultaneously fired their guns at the wrong target, injuring a bystander, who was struck by exactly one of their bullets.[3] Here the burden of proof shifts to the defendants; each is liable unless he can prove he did not influct the injury, which is usually impossible. Alternative liability only applies when all defendants are before the court, so it is certain the actual wrongdoer is among those held liable. Enterprise liability refers to holding an entire industry liable for its product. This doctrine has only been applied in one case, which for technical reasons is of uncertain precendential value. That case held the U.S. blasting cap industry (6 companies) collectively liable for a cap-caused injury because the six cooperated with each other closely, and delegated some safety functions to their trade association.[4]

Drug distribution and market share liability

DES daughters have tried to persuade the courts to apply these theories to their cases, and have usually failed. The distribution of drugs does not fit any of the above paradigms. Only in New York and Michigan have the courts ruled in favor of the daughters and allowed cases to proceed to trial under those principles.[5] Then, in March 1980, the Supreme Court of California invented a

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[2]The author worked on a DES research project at the Stanford Medical School from 1978 to 1982. For a complete account of the DES story, see Richard Gillam and Barton Bernstein, "Doing Harm: The DES Tragedy and Modern American Medicine".

[3]*Summers* vs *Tice*, 33 Cal. 2d 80, 199 P. 2d 1 (1948).

[4]*Hall* vs *E.I. du Pont de Nemours*, 345 F. Supp 353 (E.D.N.Y. 1972).

[5]*Bichler* vs *Eli Lilly & Co.*, 55 N.Y. 2d 571, 436 N.E. 2d 182 (1982) (concert of action); *Abel* vs *Eli Lilly & Co.*, 418 Mich. 311, 343 N.W. 2d 164 (1984) (alternative liability).

new theory, called market share liability, to enable DES victims to proceed with their cases. This landmark ruling, *Sindell* vs *Abbot Labs*, has given rise to dozens of analyses in the literature and is the starting point for any discussion of current law.[6] *Sindell* decided that while the probability that any one manufacturer actually produced the victim's drug was low, this probability was closely linked to the manufacturer's share of the market. The court mandated that if the victim can sue a group of producers whose combined sales accounted for a "substantial share" of the DES market, "each defendant will be held liable for the proportion of the judgment represented by its share of that market unless it demonstrates that it could not have made the product which caused plaintiff's injuries." This new theory exposed every producer of a hazardous substance, no matter how small the producer, to potential liability.

The Sindell court example

The *Sindell* court allowed recovery against the drug companies for broad reasons of policy. "The most persuasive reason...: as between an innocent plaintiff and negligent defendants, the latter should bear the cost of the injury."[7] The court went on to justify imposing liability on drug companies by citing the same reasons that underlie the basic doctrine of products liability: manufacturers are best situated to spread any losses over all users of the product, and to minimuze losses through reduction of defects and adequate warnings to users.

The theory of *Sindell* has only been adopted by the courts of one other state, South Dakota, despite the vast influence of California's courts on virtually all other states.[8] A critical factor in *Sindell's* failure to win support elsewhere was the practical difficulty of measuring market share. DES was delisted as a new drug by the FDA in 1952, removing the need for companies to submit New Drug Applications before marketing DES. Also, DES is very cheap and simple to manufacture, resulting in a fluid market, with companies constantly moving in and out of business. There had never been a national record of DES sales. Not all producers can be identified today, not all of those known have accurate sales records, and not all records are broken down by geographic area. A court could attempt to reconstruct the market data, but it was pointed out that this would require huge resources, and is not a task courts are well suited to handle.

A second problem with *Sindell* is the uncertainty over what constitutes "substantial share". It obviously requires more than 50%, and probably 75%, to have a substantial share. Because of this confusion, it would be unclear in

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[6] *Sindell* vs *Abbott Labs*, 26 Cal. 3d 588, 607 P. 2d 924 (1980). For scholarly commentary, see e.g. Fischer, "Products Liability - An Analysis of Market Share Liability," 34 Vand. L. Rev. 1623 (1981); Note "Market Share Liability: An Answer to the DES Causation Problem", Harv. L. Rev., 94 (1981) 668.

[7] *Sindell*, 26 Cal. 3d at 610-611.

[8] *McElhaney* vs *Eli Lilly & Co.*, 564 F. Supp. 265 (D.S.D. 1983).

future situations whether an action would be allowed in a specific case; much litigation would result over what the minimum number will be that is "substantial". The rule really appears to have been tailored for DES, where suing the seven major drug companies yields about a 90% market share, while identification of 100% of the market will never be possible.

Wisconsin and Washington courts example

Although the path taken by the California courts has not been followed by others, the general approach suggested by *Sindell* has had great influence. In 1984, two states, Wisconsin and Washington, adopted new solutions to the multiple manufacturer problem. Both rejected the older theories of concert of action, alternative liability, and enterprise liability, and both also decided to reject *Sindell.* While expressing sympathy for its ultimate choice, both felt it necessary to modify *Sindell* to make it fairer to defendants.

The Wisconsin decision, *Collins* vs *Eli Lilly*, is extremely insightful, and is substantially more sophisticated than other attempts in the field.[9] Whether it can practically be applied remains to be seen. Wisconsin adopted a "risk contribution" theory, derived from a theoretical position that the creation of a risk, not the infliction of damage, should be the conduct of primary legal significance. This view had been developed by Professor Robinson in a prominent law review article.[10] He argued that all producers of DES contributed to the risk to the public, so all should be liable. This would be a departure from historical principles of negligence law, which only holds culpable *that* conduct which has caused damage.[11]

Collins rejected the approach permitting suit against a substantial share or "reasonable number" of defendants, and allowed the plaintiff to proceed against one defendant. To get to the jury, if plaintiff cannot recall the type of DES taken, she may sue anyone who made DES for use as a miscarriage preventative. But to win at trial she must prove that a defendant marketed the type of DES used. (Type means color, shape, size, markings, or other identifiable characteristics). The court encouraged the plaintiff to sue many companies, to increase the chances of winning and of recovering from a solvent defendant. It also encouraged the defendant to bring in as many manufacturers as possible, to spread the liability costs. Each individual defendant may exculpate itself by proving it did not sell DES in that area, or at that time.

Assuming there is then a trial of the multiple remaining defendants, the jury

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[9]*Collins* vs *Eli Lilly*, 116 Wis. 2d 166, 342 N.W. 2d 37 (Wis. 1984).

[10]Robinson, "Multiple Causation in Tort Law: Reflections on the DES Cases," Va. L. Rev., 68 (1982) 713.

[11]If you speed through a school zone, but hit nothing and scare no one, there is no civil liability. A plaintiff must prove damages to prevail. The *Collins* court did not accept Robinson's theory in its entirety; it insisted that liability requires that the defendant company could have contributed to the actual injury. *Collins*, at p. 49, note 10.

is instructed to apportion liability among defendants by using the comparative negligence doctrine. Normally the plaintiff's negligence would be compared to that of each defendant; here the plaintiff is at zero percent and the defendants share the full cost *inter se*. The jury is expected to consider a list of specified factors in evaluating relative culpability, but it may consider other unstated factors at the discretion of the trial court. The factors are:

1) Whether the company tested DES for use in pregnancy
2) To what degree the company participated in gaining approval for pregnancy use
3) Market share of the company in plaintiff's area
4) Whether the company "took the lead" or followed in DES production
5) Whether the company issued warnings of the risk
6) Whether the company produced DES after it should have known of the hazards involved
7) Whether the company took action to reduce the risk of DES (unclear what this means)

The court gave no guidance as to the weight to be assigned to these factors. The major drug companies that accounted for most DES sales did submit applications to the FDA about 1947, so for the DES situation this approach will approximate market share liability. DES is different from some other drug tragedies because of the period it was introduced in. Controlled studies were not used for drugs at that time, and testing in the modern sense was almost nonexistent.[12] No one tested DES in an appropriate manner. The powerful evidence of inefficacy announced in 1952–53 had little effect on DES sales. Usage declined in response to social forces, not science. By the time of the FDA's November 1971 action, the U.S. birth rate was at its all-time low, and estrogens were much less popular. No DES producer distinguished itself by its warnings or knowledge of hazards.[13]

The clear purpose of this approach is to disfavor many drug marketing practices and penalize careless or unthinking behavior. It combines traditional principles of drug liability (failure to warn of any foreseeable risk) with elements of true strict liability. It also encourages producers of "me-too" drugs to improve the warnings and labelings on their products.

In October of 1984 the Washington Supreme Court adopted a new approach that combines market share and alternative liability. In its *Marin* decision[14],

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[12]Some acute transitory transplacental effect was noted for DES in the 1940s. However, intergenerational testing of new drugs on animals was never considered; these tests were used by Hoffmann - LaRoche in 1950s, and became standard U.S. practice only after 1962.

[13]*Eli Lilly*, the DES sales leader, did have somewhat superior PDR information in the early 1950s: it mentioned the existence of the inefficacy evidence in the text, and cited it in the notes. But the overall testing and marketing differed little among manufacturers, so factors 4–7 do not affect the major companies.

the court followed the ruling in *Collins* by allowing the plaintiff to sue one defendant, provided only that the defendant produced the type of DES used by the mother. Any defendant may then escape liability by proving it did not manufacture the type of DES taken, or did not market in the relevant area, or did not market at that time.

The remaining defendants can be found liable under a market share approach. Initially each is presumed to have an equal share of the plaintiff's market, defined as to time of purchase, area of purchase and type (if known) of DES. If no further evidence exists, plaintiff gets 100% of her damages, divided equally among the defendants. But each defendant has the right to prove its actual market share. If it can do so, its damages are limited to that percentage of the total award. This may result in a plaintiff receiving less than all of her damages. An example: After removal of the nonmarketing defendants, two remain. If one can now prove its actual market share was 20%, it pays 20% of the award, an the other pays 80%. But if one proves its market share was 20%, and the other establishes that its share was 60%, the plaintiff can only recover 80% of the total award. The court felt that it would be unjust for any defendant to pay more than its maximum responsibility. All of these analyses assume that every DES victim will sue and will prevail. Only under those conditions would a defendant's total liability equal the actual fraction of the harm it caused.

Massachusetts court example

Last year a federal court in Massachusetts, applying Massachusetts law, adopted the *Martin* approach.[16] The court declared that the named defendants should not be responsible for the negligence of others. Again, a producer can exculpate itself by showing it did not sell DES in that geographic area, or at that time, or did not make that type of pill. (Type refers to the shape, size, color, or markings of the pill actually consumed.)

The question of fairness to the defendants analyzed in *Martin* was avoided by the California court in its *Sindell* ruling. Assuming that the victim is able to sue a "substantial share" of the market (which requires that a sufficient number of producers are still in business and subject to the jurisdiction of the California courts), the decision is silent on the extent of collective liability. If defendants are jointly and severally liable, then every defendant is potentially liable for 100% of the award. If only 75% of the market is before the court, they must pay the full award, with each paying a sum proportional to its market share. The damages attributable to the absent defendant are divided among those present. An alternative interpretation is that defendants are severally, but not jointly liable. Each must pay a fraction of the award equal to its market share. The other courts that considered the issue recognized the ambiguity,

[14] *Martin* vs *Abbott Labs*, Wash. 2d, 689 P. 2d 368 (1984).

[15] *McCormack vs Abbott Labs*, 617 F. Supp. 1521 (D. Mass. 1985).

and assumed that an interpretation requiring joint (100%) liability was possible. The court in *Martin* said: "Although the court in *Sindell* was unclear on this point, the decision arguable requires that defendant pay 100% of the plaintiff's damages event though these defendants may represent less than 100% of the market."[16]

In the summer of 1986, a California Court of Appeals decided this issue, in the case of *Brown* vs *Superior Court.*[17] The court ruled in favor of several liability. After referring to the vast commentary on *Sindell*, the court relied on a 1981 California Law Review note that argued that the goal of *Sindell* was to produce the result closest to what would occur if identification of the manufacturer were possible in all cases.[18] If a company produced 20% of all DES sold, an all its customers successfuylly identified it, it would bear 20% of the overall damages inflicted by DES. Where identity is uncertain, each supplier's liability should approximate and be limited by its market share. Therefore *Brown* held that a victim can never recover het entire damages unless all manufacturers are before the court, which event is not likely to occur.

However, in September the California Supreme Court granted a hearing in the *Brown* case. Although most of the case deals with other issues, the high Court may rule on the market share question if it chooses. Other states also have cases pending that address the apportionment question.

Applications beyond DES

Unsuccessful attempts have been made to apply the above principles to other types of hazardous products. The California appellate court considered and rejected them in a 1983 vaccine case, *Sheffield* vs *Eli Lilly.*[19] During the 1970s, the courts had broadened the scope of manufacturer liability for vaccine-related injuries almost to the point of absolute liability. In the most famous example of this, Wyeth Labs was held liable for failing to warn a patient in a mass inoculation program of the risk of polio, even though the risk from the vaccine was smaller than the risk of catching polio if unvaccinated.[20] This trend may have been stopped in *Sheffield.* The plaintiff had received vaccine made by one of five companies; there was no way of finding out which one. He contracted encephalitis (brain disease) due to a defective lot of vaccine. The court refused to apply market share liability to any situation involving manufacturing defects. It argued that joint or several liability might be appropriate where all producers had acted culpably, such as by selling a dangerous or neg-

[16]*Martin* vs *Abbott Labs,* 689 P. 2d at 380.
[17]*Brown* vs *Superior Court,* Cal App. 3d 182 (1986) 1125.
[18]Note "Sindell vs Abbott Labs, A Market Share Approach to DES Causation", Cal. L. Rev., 69 (1981) 1179.
[19]*Sheffield* vs *Eli Lilly,* Cal. App. 3d 144 (1983) 583; Cal. Rptr., 192 (1983) 870.
[20]*Reyes* vs *Wyeth Labs,* 498 F. 2d 1264 (5th Cir. 1974).

ligently designed product, but not where the product was a safe and desirable vaccine except for one lot. Errors by one producer in quality control, storage, or other manufacturing step should not be imputed to a competitor who performed competently at all times.

Many courts have rejected the market share approach in asbestos cases.[21] Unlike DES, where exactly one manufacturer supplied the drug used, an asbestos worker who is suing many companies was acatually exposed to asbestos by all of those companies. In the *Copeland* case, eleven identifiable companies exposed the worker to the hazard. The court held that where one or more such companies can be identified, market share liability is inapplicable. It also noted that "asbestos" includes many products with widely divergent characteristics and toxicities, so a year of exposure to one product cannot be equated with a year of exposure to another. Where the health effects of the products differ, those effects should be incorporated into any apportionment of liability. However, once again, California has taken a step that breaks new ground and throws the filed into a state of confusion. In September 1986, a Court of Appeals ruled that alternative liability should be applied to the case of a shipyard worker with asbestosis (a kind of lung disease).[22] Gard had worked as an electrician, and sued more than a dozen asbestos manufacturers that might have contributed to his injury. Most of the defendants elected to settle, while Manville Corporation could not be joined in the suit because its assets were tied up in bankruptcy court, thus precluding new lawsuits against it. Previous rulings applying alternative liability had come in situations where all possible culpable defendants were before the court, which was not the case here.

Nevertheless, the court noted that public policy incouraged settlements, so a plaintiff should not be penalized because it chose to settle with some defendants, nor because Manville is legally exempt from suit. It ruled that even though the likely source of the injury was not before the court, the doctrine of alternative liability should apply. Since it is clearly impractical to apportion the injury among the three defendants who remained in the case through trial, it will be impossible for any one defendant to prove it did not inflict the injury, and all will be liable.

Future Possibilities

The last 25 years have seen an overwhelming expansion of tort liability of the manufacturers and sellers of every kind of product. As scientific understanding of the links between exposure to toxic agents and later disease grows, the number of lawsuits alleging a causal relationship between exposure and

[21] *Celotex* vs *Copeland*, 471 So. 2d 533 (S. Ct. Fla. 1985); *Thompson* vs *Johns-Manville*, 714 F. 2d 581 (5th Circ. 1983).

[22] *Gard* vs *Raymark Industries*, --Cal. App. 3d-- (2d Dist. 9/17/86).

injury will also increase. The traditional requirement that the victim identify the actual source of the injury no longer exists, as the above discussion demonstrates. The way is open for victims to sue an entire industry. The court in the *Sheffield* case suggested that the market share approach could be applied to cigarettes, pesticides, industrial waste, and other substances. A good example of possible applications would be the electronics industry concentrated in the Santa Clara Valley of California.

Electronics companies must use large quantities of organic solvents as degreasing agents. Recent publicity has focused on trichloroethane (TCA) and trichloroethylene (TCE) as potentially hazardous chemicals heavily used in this industry. If, due to a leak at some point in the transport and storage of these chemicals, the local water supply becomes contaminated, there may be then many potentially responsible parties. The capacity to account for toxic wastes will rarely be complete; there is no such thing as perfect containment. Even plutonium routinely "disappears" in significant quantities. Therefore every site that uses the chemical and is located anywhere near the ultimate contamination is a potential contributor to the ultimate result. Since these substances are rearely patentable or single-source, there is also no way to ascribe a pollutant to a specific manufacturer or distributor. Occasionally the hydrogeologic evidence may identify the geographic area from where the contamination originated, but this is frequently impossible. Apportioning the pollution, and thus apportionment of liability, becomes guesswork.

Suppose a temporary breakdown in storage creates a significant level of TCA in a group of water wells. (This occurred in San José in 1981; in that case only one company was sued, and eventually settled for a very large sum.) If more than one user has some "unaccounted for" solvents due to a leak, all would be sued. Alternatively, suppose a waste storage facility failed to function properly, releasing contaminants; all contributors of waste into the facility would be sued.

It is always in the best interests of a plaintiff to sue as many defendants as possible. Against a sole defendant, there is the chance of the company refusing to settle, leaving the victim with no money for four to seven years of litigation, or the company going out of business, leaving the plaintiff with no remedies. For a little more effort, plaintiffs reap great benefits by suing the larger group. Even if a company was only responsible for a tiny fraction of the pollution, it could face significant defense costs. Some defendants would probably settle, as the cheapest solution. Those with larger shares of responsibility will probably litigate. This may result in duplication of efforts, although there is usually some coordination of resources.

Evaluation

As the law is in a state of flux, it is appropriate to evaluate the theories discussed above. While there is no way to determine the "best" set of liability

rules, it is clear that any choice of principles will bring its own set of advantages and disadvantages.

The market share approach works poorly for non-fungible products. It lumps together all producers, guaranteeing that liability costs will be proportional to sales. The producer has no incentive to incur any costs to reduce the probability or severity of the harmful effects of its product, unless it can be assured that its competitors will incur the same costs. Companies will do the minimum necessary to conform to regulatory law, and no more. Where market share data cannot be generated, an arbitrary division of the market among the known producers seems quite unfair when the products differ in some fashion. For these reasons, it seems unlikely that any courts will be adopting this approach to non-fungible products.

Market share works much better for prescription drugs, common chemicals, or other products of uniform quality and formula. Generic marketing was introduced to provide significant economic benefit for the consumer in the form of much lower prices, but it was not intended to provide an automatic shield from liability. Where no specific conduct of any producer can be singled out for praise or blame, market share is the fairest available alternative. It also is simpler for a court to apply. It is important to note that most states are still unwilling to find *anyone* liable in the unidentifiable defendant situation. Evolution of legal doctrines is usually a slow process, and there is no consensus on whether victims of hazardous products should be compensated at all if the identity of the producer is uncertain.

The *Collins* risk contribution approach has a powerful theoretical appeal, as it emphasizes all types of producer choices and thus all types of culpability. Any producer who fails to adequately test, warn, cooperate with a regulatory agency, or react to newly discovered risks can be punished, not merely the producer who happened to have the most sales.

The *Collins* approach has features not ideal for drugs. Because of the FDA's position in the drug industry, the conduct of the drug "majors" should rarely differ significantly. All prescription drugs sold must conform to the USP in composition, include the FDA-approved labeling, and be produced in precisely defined dosage forms. Later FDA action such as withdrawal or contraindication applies uniformly to all producers. While the original marketers of DES ought to be more culpable than the producers entering after 1952, *Collins' liability factors add little to a DES-type situation. Martin's* market share approach is more useful.

For chemicals, the *Collins* approach seems better. The variation among producers and users of chemicals is great; the goal of the system ought to be the safest behavior at each stage of the chemical's life. Culpability could be calculated by examining the choice of chemicals for each use, the location of the barrels, the integrity of storage and transport, the detection of leaks, the speed of warning of leaks, and so on. Especially where contamination results from

many chemicals, a more careful measurement of liability improves the deterrent effect of tort law, and serves as a prime regulator of safety. Also, since chemicals are not always marketed by their users, and are often waste products, the market share approach makes little sense here. Market share is somewhat like a tax on profits, apportioning social cost by amount of sales, hence it is better suited for consumer products.

Conclusion

The problems posed by hazardous wastes will continue to grow. Most experts agree that the tort law system is a staggeringly inefficient way to compensate people for injuries liked to drugs, chemical or other hazards, but the system endures. It seems to combine deterrence, lotteries, and public individualized justice, three concepts very dear to our Anglo-American legal heritage. We can expect to see more suits over chemical-related injuries in the forthcoming years. At present only six states have adopted a clear form of collective liability for producers: California, Michigan, South Dakota, Wisconsin, Washington, and Massachusetts. Producers and users of chemicals in those jurisdictions have been warned that the possibility exists for great liability, and that careful recordkeeping and strong efforts to prevent releases of their chemicals are necessary. Even those operating in other states are not free of the potential risk of liability. As long as the tort system continues to be used to collect damages from those using hazardous substances, it will be vital for those involved with the substance to be able to document its fate every step of the way.