

Ranking factor	Threshold quantity (lb)
$< 1 \times 10^{-3}$	1
$\geq 10^{-3}$ to $< 10^{-2}$	10
$\geq 10^{-2}$ to $< 10^{-1}$	100
$\geq 10^{-1}$ to < 1	500
≥ 1 to < 10	1,000
≥ 10	10,000

Since there was no IDLH value available for IPDI at the time the EHS list was developed (and there still is not one), EPA estimates the IDLH equivalent for IPDI by multiplying its LC_{50} of 0.12 mg/l over a 4-hour exposure period by 0.1. This results in an IDLH value of 0.012 mg/l. To calculate V, EPA uses the boiling point for IPDI of 350 degrees Centigrade and a molecular weight of 222 g/mole in the above equation to obtain 0.096. Then the index value is derived by dividing the level of concern (0.012) by the V factor (0.096) to obtain 0.13. Using the ranking factor value for IPDI, of 0.13, and the table above, the TPQ value should be 500 pounds.

III. Explanation of the Error in the October 1994 Proposed Rule

As part of the Agency's review of the petition to delist IPDI from the EHS list, EPA discovered that IPDI was mistakenly listed as a reactive solid, as opposed to a liquid. As a result, EPA recalculated IPDI's ranking factor using the equation listed in the previous section of this preamble and proposed in October 1994, to raise the TPQ from 100 to 1,000 pounds.

During the process of finalizing the rule, EPA reviewed all documents and memos related to the October 1994 proposed rule. During the review, EPA discovered that an error was made in reading the table of ranking factors and the corresponding threshold quantities. To be certain, EPA again reviewed IPDI's physical/chemical properties and re-calculated the ranking factor. The IDLH, V factor, and ranking factor were calculated correctly in the 1994 proposed rule, however, the Agency incorrectly identified the TPQ for IPDI; the proposal should have stated 500 pounds instead of 1,000 pounds. EPA is now finalizing the TPQ for IPDI to the correct value of 500 pounds.

On February 27, 2002, EPA sent a letter to Degussa Corporation (successor to "Hüls America, Inc.") informing them of the error and provided them an additional opportunity to submit comments. The letter explained the error made in the 1994 proposal and discussed the correct TPQ value. Degussa stated that they do not have any additional comments other than those

submitted in response to the 1994 proposal. Accordingly, below, EPA responds to those comments filed by Hüls America in 1994.

IV. Response to Comments on the October 12, 1994 Proposed Rule

EPA received comments only from Hüls America. While Hüls America disagreed with EPA's decision to deny the petition to delete IPDI from the EHS list, the company acknowledged that the issue would be addressed in the litigation. Since the listing of the IPDI has been upheld by the court, this notice will not deal with that issue.

With respect to the TPQ for IPDI, Hüls America argues that the highest TPQ category of 10,000 pounds should be assigned. This is because IPDI is non-volatile and is toxic only at levels well above its saturated vapor concentration. Because EPA has not considered relative vapor pressure in calculating TPQs for such non-volatile compounds, the TPQs bear no relationship to the very low potential for compounds to disperse beyond a facility boundary. Therefore, IPDI, which has a very low vapor pressure is unlikely to present any risk at the fence line in the event of a release. The commenter also disagreed with EPA's TPQ methodology, particularly with respect to EPA's assumption that dispersion is relatively similar from chemical to chemical. The commenter stated that the aerosol acute toxicity data do not support the need to set the TPQ for IPDI below 10,000 pounds. In fact, Hüls argues that because IPDI's toxicity was determined using an aerosol form of the chemical, the dispersability of IPDI for calculating the TPQ should be based on the aerosol form rather than on liquid volatility. The commenter also stated that IPDI is manufactured and processed in closed vessels which are not under pressure. So, there is less likelihood that accidents may occur.

EPA disagrees with Hüls' assertion that it did not consider relative vapor pressure and that the TPQs for non-volatile compounds such as IPDI bear no relationship to the very low potential for these compounds to disperse beyond a facility boundary as a result of a spill or release. In general, non-volatile liquid chemicals have relatively low vapor pressure and relatively high boiling points. These substances are not as likely as volatile liquids to disperse beyond a facility boundary. As described above, EPA uses the liquid boiling point to calculate a V factor which is used as a relative measure of the ability of the substance to become airborne and disperse downwind. Non-volatile substances with high boiling

points will give a small V factor which generates a larger ranking factor than volatile substances with a large V factor. The V factor is likely to be the same using either the substance's boiling point or ambient vapor pressure. The larger the ranking factor, the greater the TPQ. Therefore, a large TPQ would reflect a relative inability of a substance to travel off-site.

EPA believes that boiling point is a reflection of relative vapor pressure since non-volatile liquids have a low vapor pressure and a correspondingly high boiling point while volatile liquids have a high vapor pressure and a correspondingly low boiling point. Of the 183 liquid chemicals on the EHS list, only 18 chemicals have less than or the same vapor pressure as IPDI, and only 17 chemicals have higher or the same boiling point as IPDI. Therefore, when compared to the other chemicals on the EHS list, the ability of IPDI to disperse is relatively the same when considering either vapor pressure (as the petitioner requests) or boiling point (as the methodology now considers). For this reason, changing the methodology from boiling point to vapor pressure will not likely have a significant impact on IPDI's rank in comparison to other chemicals and consequently, its TPQ. While both of these factors demonstrate that IPDI under standard temperatures and pressures is less likely to disperse (relative to the other liquids on the EHS list), its TPQ is based on its boiling point and its acute toxicity (not by boiling point or toxicity alone) like other listed liquids.

EPA also disagrees that its TPQ methodology is improper, particularly with respect to the assumption that dispersion is relatively similar from chemical to chemical. EPA recognizes that once airborne, fine powders, aerosols, mists, or dense or lighter than air vapor clouds or gases may disperse differently from one another, depending on the density and concentration of the substance in the air, the air temperature, humidity, and other chemical- and dispersion-specific factors. A rigorous analysis of the unique dispersion characteristics could be conducted for each listed EHS substance. However, such an analysis is highly influenced by site-specific factors such as meteorology, terrain, and the accidental release scenario. Since the Agency does not have site-specific data for all sites potentially handling the EHS substances and a methodology for determination of the TPQ needs to be uniformly applied, the Agency assumed, that for purposes of a relative ranking, that the airborne dispersion of particles and vapors will likely be similar across the range of