

**CPDA Adjuvant Certification**  
**Labeling and Performance Standards**  
**For Spray Adjuvants**

**S = Standard**

**(S-1)** - Product functionality claims described in labels and promotional materials must be consistent with the definitions described in the ASTM E-1519 “Standard Terminology Relating to Agricultural Tank Mix Adjuvants” and/or ASTM E-609 “Standard Terminology Relating to Pesticides.”

**(S-2)** - New product functionality claims must be submitted to and adopted by the ASTM E-35 committee into the ASTM E-1519 or E-609 prior to use in product labels and/or promotional literature.

**(S-3)** - All products submitted for certification that are intended for direct application to food crops must contain only those components the U.S. Environmental Protection Agency (EPA) has approved and listed for such use in 40 CFR part 180 or by the Food and Drug Administration in 21 CFR.

**(S-4)** - Product labeling and packaging must be compliant with applicable U.S. Department of Transportation (DOT) regulations based on chemical, physical, and toxicological properties of the packaged product.

**(S-5)** - Products that contain substances in concentrations identified by the Occupational Safety and Health Administration (OSHA) as being a regulated hazardous material must disclose the presence of such substances on the Safety Data Sheet (SDS).

**(S-6)** - Product SDSs must be registered with a data service that is accessible 24 hours a day via a toll-free number. The service must be accessible by the U.S. Poison Control Center.

**(S-7)** - Product Hazard Signal Words regarding acute toxicity (see Table 1) must be assigned based on the results of scientifically valid studies for oral toxicity, dermal toxicity, and eye irritation as required by the Occupational Safety and Health Administration’s current Hazard Communication Standard (see 29 CFR § 1910.1200 and Appendices A, B, and C of that section). The required Signal Word is determined by the most severe toxicity category to which a product is assigned based on the results of applicable acute toxicity studies. (see Table 1 & Appendix 1 of this Schedule B).

**Table 1. Acute Toxicity Categories and Signal Words.**

Toxicity Category	Signal Word
1	DANGER
2	WARNING
3	WARNING
4	WARNING

**(S-8)** - Acute toxicity data regarding inhalation and skin corrosion/irritation (see Appendix 1) must be provided if the individual components of the product are described as being hazardous in one of these areas by the SDS or other information available to the company seeking product certification.

**(S-9)** - All applicable Hazard Communication Standard first aid, handling, and storage requirements, as well as protective equipment recommendations, must be included on the product label. Such recommendations must be consistent with the results of the acute toxicity tests and product SDS.

**(S-10)** - Products specifically recommended for use with pesticides in aquatic applications must have aquatic toxicity assessment data generated in accordance with OCSPP Harmonized Test Guidelines Series 850 - Fish and Invertebrate. Label use rate recommendations must not exceed levels potentially hazardous to aquatic organisms, as determined by the assessment data.

**(S-11)** - Only Principal Functioning Agents that contribute to a product's claimed functionality, and which serve functions as defined in ASTM Standards E-1519 or E-609, may be claimed on product labels as part of the Principal Functioning Agent guarantee. Principal Functioning Agents must each be listed by a discreet chemical descriptor. For example, generic terms such as XYZ blend, XYZ solution, or surfactant, cannot be used as descriptors for Principal Functioning Agents. Any ASTM test method that gives the percentage of water removed from the product may be used to support the Principal Functioning Agent percent guarantee. This method will establish the maximum upper limit for the Principal Functioning Agent percent but does not necessarily equal the Principal Functioning Agent percent, as only those non-volatile components that contribute to the claimed functionality are to be included.

**(S-12)** - Supporting data for spray adjuvant functionality claims must be generated using ASTM Standardized Methods, where methods are available for such purposes.

**(S-13)** - When claimed as part of the functioning agents, the percentage of surfactant must be displayed on labels if the intended functionality includes reference to a surfactant, spreader, or wetting agent. Those formulation components claimed as surfactants must be water dispersible substances that reduce the surface tension of water to 45 dynes/cm or less at 0.5% w/w (ASTM method D-1331). Formulation components are defined as individual raw ingredients in their stand-alone form, and not as blends.

**(S-14)** - Oil-based spray adjuvant labels must describe the type(s) of oil utilized in the product in accordance with ASTM Standardized Terminology. Products using two or more types of oil must list them within the label guarantee in descending order of their compositional content.

**(S-15)** - Phytobland, paraffinic oil, and petroleum-based spray adjuvants must list the Unsulfonated Oil Residue (UR) value of the oil component on the product label.

**(S-16)** - The Manufacturer of certified spray adjuvants should be consistent with the industry standards for "Good Manufacturing Practices."

**(S-17)** - Manufacturers receiving certification for a particular product must reapply for certification if a chemical or compositional change of the product impacts one or more of the standards listed in (S-1) through (S-16). Recertification is also required if new information and/or manufacturing changes impact the principal functioning agents, toxicity, and/or safety aspects of the product.

## APPENDIX 1

Acute Studies & Hazard Indicators	Toxicity Categories			
	Category 1	Category 2	Category 3	Category 4
Oral Toxicity (LD50 – mg/kg)	≤5	>5 and ≤ 50	>50 and ≤300	>300 and ≤2,000
Dermal Toxicity (LD50 – mg/kg)	≤50	>50 and ≤200	>200 and ≤1,000	>1,000 and ≤2,000
Eye Irritation	See Footnote <sup>1</sup>	See Footnote <sup>2</sup>		

<sup>1</sup> A substance is classified as Serious Eye Damage Category 1 (irreversible effects on the eye) when it produces: (a) at least in one tested animal, effects on the cornea, iris or conjunctiva that are not expected to reverse or have not fully reversed within an observation period of normally 21 days; and/or (b) at least in 2 of 3 tested animals, a positive response of: (i) corneal opacity ≥3; and/or (ii) iritis >1.5; calculated as the mean scores following grading at 24, 48 and 72 hours after instillation of the substance.

<sup>2</sup> A substance is classified as Eye Irritant Category 2A (irritating to eyes) when it produces in at least in 2 of 3 tested animals a positive response of: (i) corneal opacity ≥1; and/or (ii) iritis ≥1; and/or (iii) conjunctival redness ≥2; and/or (iv) conjunctival edema (chemosis) ≥ 2 calculated as the mean scores following grading at 24, 48 and 72 hours after instillation of the substance, and which fully reverses within an observation period of normally 21 days. An eye irritant is considered mildly irritating to eyes (Category 2B) when the effects listed above are fully reversible within 7 days of observation.



<b>Inhalation - Gases (ppmV)</b>	≤100	>100 and ≤500	>500 and ≤2,500	>2,500 and ≤20,000
<b>Acute Studies &amp; Hazard Indicators</b>	<b>Toxicity Categories</b>			
	<b>Category 1</b>	<b>Category 2</b>	<b>Category 3</b>	<b>Category 4</b>
<b>Inhalation - Vapors (mg/l)</b>	≤0.5	>0.5 and ≤2.0	>2.0 and ≤10.0	>10.0 and ≤ 20.0
<b>Inhalation - Dusts &amp; Mists (mg/l)</b>	≤0.05	>0.05 and ≤0.5	>0.5 and ≤1.0	>1.0 and ≤ 5.0
<b>Skin Corrosion</b>	See Footnote <sup>3</sup>			
<b>Skin Irritation</b>		See Footnote <sup>4</sup>		

<sup>3</sup> A corrosive substance is a chemical that produces destruction of skin tissue, namely, visible necrosis through the epidermis and into the dermis, in at least 1 of 3 tested animals after exposure up to a 4- hour duration.

Category 1: Skin Corrosion (based on corrosive in ≥1 of 3 animals)

<u>Sub-categories</u>	<u>Exposure</u>	<u>Observation</u>
1A	≤3 m	≤1 h
1B	>3 m ≤1 h	≤14 d
1C	>1 h ≤4 h	≤14 d

<sup>4</sup> Category 2: Skin Irritation is the production of reversible damage to the skin following the application of a test substance for up to 4 hours. It is based on the 1) Mean value of ≥2.3 ≤4.0 for erythema/eschar or for edema in at least 2 of 3 tested animals from gradings at 24, 48 and 72 hours after patch removal or, if reactions are delayed, from grades on 3 consecutive days after the onset of skin reactions; or (2) Inflammation that persists to the end of the observation period normally 14 days in at least 2 animals, particularly taking into account alopecia (limited area), hyperkeratosis, hyperplasia, and scaling; or (3) In some cases where there is pronounced variability of response among animals, with very definite positive effects related to chemical exposure in a single animal but less than the criteria above.