

# Environmental Product Declaration

FOR 1 kg of: **Roundup UltraMAX Herbicide**  
Manufactured by:

This Environmental Product Declaration is based on third-party verified results.  
It involves a cradle-to-gate (A1-A3) life-cycle assessment of the product's ingredients. EPD confidence Score = **100%**

## Life Cycle Inventory Assessment Results



● acetone (87%) ● ethanol (13%)

Parameter	Units	Total (A1-A3)
Climate Change <b>Fossil Fuels</b>	kg-CO <sub>2</sub> .eq	1.8
Climate Change <b>Biogenic</b>	kg-CO <sub>2</sub> .eq	0.0085
Climate Change <b>Land Use</b>	kg-CO <sub>2</sub> .eq	0.019
Climate Change <b>Total</b>	kg-CO <sub>2</sub> .eq	<b>1.8</b>

### Climate Change Rating



Parameter	Units	Total (A1-A3)	
Acidification	mol-H+.eq	0.011	<b>A</b>
<b>Eutrofication</b> Freshwater	kg-P.eq	$4.8 \times 10^{-4}$	<b>A</b>
<b>Eutrofication</b> Marine	kg-N.eq	0.0038	<b>B</b>
<b>Eutrofication</b> Terrestrial	mols-N.eq	0.03	<b>B</b>
Photochemical Ozone Creation	kg-NMVOC.eq	0.0089	<b>A</b>
Ozone Depletion	kg-CFC-11.eq	$4.8 \times 10^{-8}$	<b>D</b>
Abiotic Material Resource Depletion	kg-Sb.eq	$1.3 \times 10^{-5}$	<b>D</b>
Abiotic Energy Resource Depletion	MJ	36	<b>A</b>
Deprivation-Weighted Water Use	m3-world.eq	1.6	<b>B</b>

Parameter	Units	Total (A1-A3)	
Hazardous Waste Disposed	kg	$3.4 \times 10^{-5}$	<b>D</b>
Non-hazardous Waste Disposed	kg	0.19	<b>A</b>
Radioactive Waste Disposed	kg	$9.8 \times 10^{-6}$	<b>D</b>

## Ingredients

Ingredient Name	Cas Number	% w/w Proportion	LCA Confidence
<b>acetone</b>	67-64-1	73	1
<b>ethanol</b>	64-17-5	27	1



## Key Assumptions for EPD



### INGREDIENTS

All upstream sourced.  
Impacts from global averages.  
*Calculated from peer-reviewed LCA databases*



### PACKAGING

Excluded



### PRINCIPLE

Polluter-pays



### MANUFACTURING

Blending only, negligible impact  
No raw material or manufacturing  
product losses



### METHODOLOGIES

EF v3.1, CED, EDIP 2003  
(in Tables 2, 3 and 4 respectively)