

CERTIFICATE OF ANALYSIS

BASELINE[®] Hydrogen Peroxide

PRODUCT NUMBER: S021001

LOT 17210100

ASSAY (H₂O₂, w/w): 31%

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----|------------|----|------------|----|-----------|----|-----------|----|-----------|----|------------|----|-------------|-----|------------|----|------------|----|------------|----|-------------|----|------------|----|-----------|----|-----------|----|------------|----|------------|--|--|
| 1A | | | | | | | | | | | | | | 3A | | 4A | | 5A | | 6A | | 7A | | | | | | | | | | | |
| 2A | | | | | | | | | | | | | | 5 B | | | | | | | | | | | | | | | | | | | |
| 3 | Li < 5 | 4 | Be < 5 | | | | | | | | | | | | | 13 | Al < 30 | | | | | | | | | | | | | | | | |
| 11 | Na < 50 | 12 | Mg < 10 | 3B | | 4B | | 5B | | 6B | | 7B | | 8 | | 1B | | 2B | | | | | | | | | | | | | | | |
| 19 | K < 10 | 20 | Ca < 50 | 21 | Sc < 5 | 22 | Ti < 5 | 23 | V < 5 | 24 | Cr < 10 | 25 | Mn < 5 | 26 | Fe < 20 | 27 | Co < 1 | 28 | Ni < 10 | 29 | Cu < 5 | 30 | Zn < 10 | 31 | Ga < 5 | 32 | Ge < 5 | 33 | As < 10 | 34 | Se < 10 | | |
| 37 | Rb < 1 | 38 | Sr < 1 | 39 | Y < 1 | 40 | Zr < 1 | 41 | Nb < 1 | 42 | Mo < 5 | | | 44 | Ru < 1 | 45 | Rh < 5 | 46 | Pd < 1 | 47 | Ag < 1 | 48 | Cd < 1 | 49 | In < 1 | 50 | Sn < 5 | 51 | Sb < 2 | 52 | Te < 1 | | |
| 55 | Cs < 1 | 56 | Ba < 2 | 57 | La < 1 | 72 | Hf < 1 | 73 | Ta < 1 | 74 | W < 5 | 75 | Re < 0.5 | | | 79 | Au < 10 | 80 | Hg < 2 | 81 | Tl < 0.5 | 82 | Pb < 1 | 83 | Bi < 5 | | | | | | | | |

ALL VALUES ARE REPORTED IN PARTS PER TRILLION (PPT)

| | |
|---------|---------------------------------|
| KEY | (1) Atomic Number |
| (1) (2) | (2) Elemental Symbol |
| (3) | (3) Concentration (mean in ppt) |
| (4) | (4) 1 Standard Deviation (N=3) |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----|-------------|----|-------------|----|------------|--|--|----|-----------|----|-----------|----|-----------|----|-------------|----|-----------|----|-----------|----|-----------|----|-------------|----|-----------|----|-----------|
| 58 | Ce < 1 | 59 | Pr < 0.5 | 60 | Nd < 1 | | | 62 | Sm < 1 | 63 | Eu < 1 | 64 | Gd < 1 | 65 | Tb < 0.5 | 66 | Dy < 1 | 67 | Ho < 1 | 68 | Er < 1 | 69 | Tm < 0.5 | 70 | Yb < 1 | 71 | Lu < 1 |
| 90 | Th < 0.5 | | | 92 | U < 0.5 | | | | | | | | | | | | | | | | | | | | | | |

Elements are determined by magnetic sector ICP-MS. The results are an average of three samples representative of the lot.

Release Date: November 10, 2010

Expiry Date: November 10, 2013



H₂O₂ (30 - 32%): Properties
 Molar Mass: 34.01g/mol
 Density: 1.13 g/ml
 Molarity: 10 moles/litre
 Normality: 10 moles/litre

B M = X
 Dr. B. McKelvey
 QA/QC Manager

Product Integrity:

Based on extensive testing results, SEASTAR CHEMICALS INC have found our products, unopened and sealed, maintain the certified integrity, or product quality, for a minimum of three years under the following conditions:

- Stored at room temperature, maximum range 15°C (59°F) to 25°C (77°F).
- Minimum exposure to light.
- For limited time, storage/transport temperature range 5°C (41°F) to 35°C (95°F)

Upon opening the product, the product's integrity will depend on proper handling and exposure to contaminants. The product has been bottled under CLASS 100 clean room conditions, to maintain the certified quality it should be used under these conditions. Furthermore to reduce trace metal contamination, the inner pack of plastic bags and bottle should be opened under CLASS 100 particle conditions to maintain the integrity of the product. The use of plastic gloves, hair net and a clean room suit is also advised.

Safety:

PRIOR to opening or storing this product be sure to consult the Material Safety Data Sheet (MSDS) Section 7 Handling and Storage to ensure safe storage and handling with regards to this hazardous material. This information must be understood prior to its use or storage.

SAFETY HANDLING NOTES: Consult your MSDS, PRIOR to handling these materials. Use proper safety apparel according to the recommendations of the MSDS. Exposure controls and personal protection should include: a properly functioning fume hood, protection for eyes (safety glasses), hands (chemically compatible gloves), feet (chemically compatible boots) and exposed skin (splash protection and a chemically compatible apron). All of these items must conform to local/regional/national regulatory requirements.



Dr. B. McKelvey
QA/QC Manager

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