



**Hydrogenated Castor Oil  
Regular Grade (HCO-R)**

| Value                               | AOCS     |
|-------------------------------------|----------|
| <b>Color (Apha) max.</b>            |          |
| 250                                 | Td 1b-64 |
| <b>Color (Gardner) max.</b>         |          |
| 2                                   | Td 1a-64 |
| <b>Acid Value, or (A.V.) max.</b>   |          |
| 2                                   | Cd 3d-63 |
| <b>Neutralization Value (N.V.)</b>  |          |
| -                                   | -        |
| <b>Iodine Value (I.V.) max.</b>     |          |
| 2.5                                 | Tg 1a-64 |
| <b>Hydroxyl Value (OH.V.) min.</b>  |          |
| 155                                 | Cd 13-60 |
| <b>Saponification Value (S.V.)</b>  |          |
| 175-185                             | Cd 3-25  |
| <b>Melting Point (M.P.), C;min.</b> |          |
| 85                                  | Cc 1-25  |



**Hydrogenated Castor Oil  
Premium Grade (HCO-P)**

| Value                               | AOCS     |
|-------------------------------------|----------|
| <b>Color (Apha) max.</b>            |          |
| 150                                 | Td 1b-64 |
| <b>Color (Gardner) max.</b>         |          |
| 1                                   | Td 1a-64 |
| <b>Acid Value, or (A.V.) max.</b>   |          |
| 2.0                                 | Cd 3d-63 |
| <b>Neutralization Value (N.V.)</b>  |          |
| -                                   | -        |
| <b>Iodine Value (I.V.) max.</b>     |          |
| 2.5                                 | Tg 1a-64 |
| <b>Hydroxyl Value (OH.V.) min.</b>  |          |
| 157                                 | Cd 13-60 |
| <b>Saponification Value (S.V.)</b>  |          |
| 175-185                             | Cd 3-25  |
| <b>Melting Point (M.P.), C;min.</b> |          |
| 85                                  | Cc 1-25  |



**12 Hydroxy stearic acid  
Regular Grade (12H-R)**

| Value                               | AOCS     |
|-------------------------------------|----------|
| <b>Color (Apha) max.</b>            |          |
| 750                                 | Td 1b-64 |
| <b>Color (Gardner) max.</b>         |          |
| 5                                   | Td 1a-64 |
| <b>Acid Value, or (A.V.) max.</b>   |          |
| -                                   | Cd 3d-63 |
| <b>Neutralization Value (N.V.)</b>  |          |
| 175-185                             | -        |
| <b>Iodine Value (I.V.) max.</b>     |          |
| 3                                   | Tg 1a-64 |
| <b>Hydroxyl Value (OH.V.) min.</b>  |          |
| 155                                 | Cd 3-25  |
| <b>Saponification Value (S.V.)</b>  |          |
| 180-191                             | Cd 3-25  |
| <b>Melting Point (M.P.), C;min.</b> |          |
| 70                                  | Cc 1-25  |



**12 Hydroxy stearic acid  
Premium Grade (12H-P)**

| Value                                | AOCS     |
|--------------------------------------|----------|
| <b>Color (Apha) max.</b>             |          |
| 350                                  | Td 1b-64 |
| <b>Color (Gardner) max.</b>          |          |
| 3                                    | Td 1a-64 |
| <b>Acid Value, or (A.V.) max.</b>    |          |
| -                                    | -        |
| <b>Neutralization Value (N.V.)</b>   |          |
| 175-185                              | -        |
| <b>Iodine Value (I.V.) max.</b>      |          |
| 3                                    | Tg 1a-64 |
| <b>Hydroxyl Value (OH.V.) min.</b>   |          |
| 157                                  | Cd 3-25  |
| <b>Melting Point (M.P.), °C min.</b> |          |
| 180-190                              | Cd 3-25  |
| <b>Melting Point (M.P.), C;min.</b>  |          |
| 70                                   | Cc 1-25  |



**GLYCERINE  
FO Grade**

| Value                         | AOCS |
|-------------------------------|------|
| <b>Glycerol % min.</b>        |      |
| 99.5                          |      |
| <b>Moisture % max.</b>        |      |
| 0.5                           |      |
| <b>SP.GR. 25oC range</b>      |      |
| 1.2607 - 1.2625               |      |
| <b>Heavy Metal ppm max.</b>   |      |
| 5                             |      |
| <b>Ash % max.</b>             |      |
| 0.01                          |      |
| <b>Fatty Acid &amp; Ester</b> |      |
| 1                             |      |
| <b>Colour APHA</b>            |      |
| 10                            |      |
| <b>Appearance</b>             |      |
| CLEAR                         |      |



**GLYCERINE  
FN Grade**

| Value                         | AOCS |
|-------------------------------|------|
| <b>Glycerol % min.</b>        |      |
| 99.0                          |      |
| <b>Moisture % max.</b>        |      |
| 1.0                           |      |
| <b>SP.GR. 25oC range</b>      |      |
| 1.2607 - 1.2625               |      |
| <b>Heavy Metal ppm max.</b>   |      |
| 5                             |      |
| <b>Ash % max.</b>             |      |
| -                             |      |
| <b>Fatty Acid &amp; Ester</b> |      |
| -                             |      |
| <b>Colour APHA</b>            |      |
| 10                            |      |
| <b>Appearance</b>             |      |
| CLEAR                         |      |