



Ranhill SAJ

SPECIFICATION FOR CALCIUM HYPOCHLORITE USED FOR POTABLE SUPPLY

**SPECIFICATION SAJ CH/CH/001
(Rev.3.0 / 12.2018)**

Ranhill
SAJ
QUALITY ASSURANCE DEPARTMENT
RANHILL SAJ SDN. BHD.

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Ass General Manager Quality Management

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Specification for Calcium Hypochlorite Used For Potable Water Supply

1.0 GENERAL

- 1.1) This specification is applicable to Calcium Hypochlorite Used For Potable Water Supply accordingly to Spesifikasi JKR 20200-0106-01, JKR Standard Specification For Calcium Hypochlorite Used For Potable Water Supply.
- 1.2) Features required for this specification are as follows or otherwise the above specification will be applied.

2.0 FEATURES REQUIRED

- 2.1) Calcium Hypochlorite Used for Potable Water Supply shall comply with requirement as specified in Table 1 – Product Specification.

Table 1 – Product Specification

Parameter	Requirement		Test Method
	Type 1	Type 2	
A. Chemical Requirement			
Available chlorine, % (w/w)	25 min	65 min	AWWA B300-99 EN900: 1999
B. Physical Requirement			
Insoluble matter, % (w/w)	-	4 max	EN900: 1999
Moisture, % (w/w)	5 max	5 max	EN900: 1999
Sodium Chlorite, % (w/w)	-	18 max	EN900: 1999
C. Toxic Substances			
	Limit	Limit	
Arsenic (As), as mg/kg of available chlorine	10	10	EN900: 1999
Cadmium (Cd), as mg/kg of available chlorine	10	10	EN900: 1999
Chromium (Cr), as mg/kg of available chlorine	15	15	EN900: 1999
Mercury (Hg), as mg/kg of available chlorine	7	7	EN900: 1999
Nickel (Ni), as mg/kg of available chlorine	10	10	EN900: 1999
Lead (Pb), as mg/kg of available chlorine	15	15	EN900: 1999
Antimony (Sb), as mg/kg of available chlorine	15	15	EN900: 1999
Selenium (Se), as mg/kg of available chlorine	20	20	EN900: 1999

2.2) Physical Properties of Calcium Hypochlorite are as follows:

No.	Physical Properties	Description
1.	Appearance	i. Free Flowing ii. White colour or granule
2.	Solubility	i. Theoretical – 180g/L ii. Practically – 30g/L
3.	Density	i. Type 1 – Granular Powder, 0.6 – 0.9 g/cm ³ ii. Type 2 – Granular Powder, 0.5 –

2.3) Chloride content minimum of 25% for Type 1 and 65% for Type 2 of available chlorine.

2.4) Calcium Hypochlorite supplied shall not contain any impurities and additives.

3.0 TEST AND INSPECTION

3.1 All Calcium Hypochlorite shall comply with test in accordance with the requirement of specification.

4.0 PACKING AND STORAGE

4.1 Calcium Hypochlorite shall be delivered in metal/plastic drum form with plastic lining.

4.2 For storage purposes, Calcium Hypochlorite shall be stored in airtight containers in cool, dry and well ventilated room

5.0 MANDATORY MARKING

Each bag of Calcium Hypochlorite shall have mark legibly on it including: -

5.1 "Calcium hypochlorite" or "Chloride of lime", trade name and grade/type;

5.2 Net weight;

5.3 Name, address and telephone number or supplier and/or manufacturer;

5.4 Batch number;

5.5 Date of manufacturing / packaging and shall bear such other marking as required by applicable laws;

6.0 TRANSPORTATION AND LABELLING

The product shall be categorized under the following transportation guideline and labelling ;

- 6.1 RID : class 5.1;
- 6.2 ADR : class 5.1;
- 6.3 IMO-IMDG : class 5.1, UN No 1748;
- 6.4 IATA : class 5.1, UN No 1748.

7.0 PRE-DELIVERY INSPECTION AND EVALUATION

- 7.1 It is the responsibility of the tenderer to inform SAJ for inspection purposes during manufacturing and before delivery.
- 7.2 SAJ reserve the right to inspect and witness the testing of the product offered without any prior notice.
- 7.3 At any time, when requested, the supplier is to provide SAJ a sample of the product offered for evaluation purposes. All cost shall be borne by the supplier.
- 7.4 If at any time, the supplier fails to deliver the required sample, the product is deemed fail to meet the specification.

8.0 CERTIFICATION

- 8.1 Manufacturer and/or supplier of the product are required to provide the copy of the certificate and testing report from SIRIM, IKRAM and/or other certification bodies.
- 8.2 Tests report required should be those tests conducted within a year period.
- 8.3 SAJ has the right to refuse offer or reject supply if those documents required are not enclosed.

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