

NUCLEANT

* MATERIAL SAFETY DATA SHEET *

Plungeable grain refining agents for aluminium alloys. NUCLEANT range of products are available in tablet form and are used for grain refining of aluminium and its alloys.

PRODUCT IDENTIFICATION

Product Name	Nucleant
Chemical Family	Chlorinated Hydrocarbon
Chemical Name	Nucleant
Synonyms	Carbon Hexachloride, Perchloroethane
CAS Number	67-72-1
Chemical Formula	C ₂ Cl ₆

COMPANY IDENTIFICATION

Name	Scottish Chemical Industries
Address	407-412, Span Centre, 4 th Floor, South Avenue, Santacruz (W), Mumbai – 400 054. INDIA.
Phone No.	+91-22-2605 6666 - 6 Lines
Fax No.	+91-22-2605 6060
Emergency Phone Nos.	+91-22-2605 6006 (Business Hrs.) +91-22-2620 0766 (After Business Hrs)
Email	scottish@vsnl.com

COMPOSITION & INFORMATION ON INGREDIENTS

Ingredients Name	HEXACHLOROETHANE
CAS Number	67-72-1
% Percent	100%
Exposure Limit	OSHA 1 ppm (skin) ACGIH 1 ppm (skin)

HAZARDS IDENTIFICATION

Acute Health Effects	Irritating to the skin and eyes on contact. Inhalation will cause irritation to the lungs and mucous membrane. Irritation to the eyes will cause watering and redness. Reddening, scaling, and itching are characteristics of skin inflammation. Follow safe industrial hygiene practices and always wear protective equipment when handling this compound.
Chronic Health Effects:	This product has no known chronic effects. Repeated or prolonged exposure to this compound is not known to aggravate medical conditions.
Carcinogenicity:	This product is not listed by NTP, IARC or regulated as a Carcinogen by OSHA.

FIRST AID MEASURES

First Aid For Eye	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
First Aid For Skin	In case of contact, flush skin with water. Wash clothing before reuse. Call a physician if irritation occurs.
First Aid For Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
First Aid For Ingestion	If swallowed, call a physician immediately.

FIRE & EXPLOSION DATA

Flamability	Non-Flamable	Auto-Ignition	Not Applicable
Flash Point	Not Applicable	Flamable Limits	Not Applicable
Extinguishing Media	Water – Spray, CO ₂ Dry Chemical Powder or Appropriate Foam.		
Fire Fighting Procedures	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.		
Fire/explosion Hazards	Emits toxic fumes under fire conditions		

ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures	Utilize recommended protective clothing and equipment. Clean spills in a manner that does not disperse dust into the air. Spill area can be washed with water. Collect wash water for approved disposal. Keep from entering water or ground water.
Waste Disposal Method	Waste disposal should be in accordance with existing federal, state and local environmental regulations

HANDLING & STORAGE

Storage Temperatures	Ambient Shelf Life: Unlimited in tightly closed container
Special Sensitivity	None
Handling/Storage Precautions	Avoid breathing dust. Avoid getting in eyes or on skin. Wash thoroughly after handling. Store in a dry place away from direct sunlight, heat and incompatible materials. Reseal containers immediately after use. Store away from food and beverages.

EXPOSURE CONTROLS/ PERSONAL PROTECTION

Eye Protection	Safety glasses or goggles.
Skin Protection	PVC gloves with impervious boots, apron or coveralls. Employees should wash their hands and face before eating, drinking or using tobacco products.
Respirator	Work ambient concentrations should be monitored and if the recommended exposure limit is exceeded, a NIOSH/MSHA approved dust respirator must be worn.
Ventilation	Use local ventilation if dusting is a problem, to maintain air levels below the recommended exposure limit.
Additional Protective Measures	Emergency showers and eye wash stations should be available. Educate and train employees in the safe use and handling of hazardous chemicals.

PHYSICAL & CHEMICAL PROPERTIES

Physical Form	Solid Color: White
Odor	Camphorlike odor
Molecular Weight	236.74
Boiling Point	Triple point 186.8°C
Melting/freezing Point	Triple point 186.8°C
Solubility In Water	Insoluble
Specific Gravity	2.091

STABILITY & REACTIVITY

Stability	Stable under ordinary conditions of use and storage.
Hazardous Polymerization	Will Not occur
Incompatibilities	Strong Oxidizing Agents & Strong Bases
Instable Conditions	Excessive temperatures (see Incompatibilities).
Decomposition Temperature	Sublimes above 186.8°C
Decomposition Products	CO, CO ₂ Hydrogen Chloride Gas & Phosgene Gas

TOXICOLOGICAL INFORMATION

RTECS Number:	KI4025000
Routes of Exposure:	Eye contact. Ingestion. Inhalation. Skin contact.
Toxicity Data:	ORL-RAT LD50: 4460 mg/kg
Chronic Toxic Effects:	CARCINOGEN, Damage To The Liver. May Cause Nervous System Disturbances.
Acute Toxic Effects:	Irritating to the skin and eyes on contact. Inhalation will cause irritation to the lungs and mucus membrane. Irritation to the eyes will cause watering and redness. Reddening, scaling, and itching are characteristics of skin inflammation. Follow safe industrial hygiene practices and always wear protective equipment when handling this compound.

ECOLOGICAL INFORMATION

Ecotoxicity	Not available at this time.
-------------	-----------------------------

SPILL, LEAK & DISPOSAL CONSIDERATIONS

Spill Or Leak Procedures	Utilize recommended protective clothing and equipment. Clean spills in a manner that does not disperse dust into the air. Spill area can be washed with water. Collect wash water for approved disposal. Keep from entering water or ground water.
Waste Disposal Method	Waste disposal should be in accordance with existing federal, state and local environmental regulations.

TRANSPORT INFORMATION

Proper Shipping Name:	Toxic Solid, Organic, n.o.s. (Hexachloroethane)		
UN Number:	2811	Class	6.1
P.G.:	III	DOT Label	Toxic

REGULATORY INFORMATION

OSHA Status:	This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.	
TSCA Chemical Inventory:	This compound is on the EPA Toxic Substance Control Act (TSCA) inventory List	
California Proposition 65	To the best of our knowledge, this product contains no levels of listed substances, which the state of California has found to cause cancer, birth defects or other reproductive effects	
SARA Title III:	Section 302 Extremely Hazardous Substances:	None
	Section 311/312 Hazard Categories:	None
	Section 313 Toxic Chemicals:	None

OTHER INFORMATION

The information herein contained relates only to the specific material identified. Scottish Chemical Industries (INDIA) believes that the information is exact and reliable on the date of issue of this safety data sheet, but is not responsible for, and does not guarantee, expressly or implicitly, that the information is exact, true or comprehensive. This information may not be construed as a warranty in the legal sense, whereby Scottish Chemical Industries, assumes no legal liability.

It should be noted that the typical properties mentioned in this "Safety Data Sheet" are provided for the purposes of information only and do not constitute any type of specification.

The receivers of our product must observe, under their own liability, the corresponding rules and regulations and standards.

CUSTOMER BENEFITS

NUCLEANT range of products:

- Improves mechanical properties
- Improves feeding characteristics
- Ensures freedom from cracking in rolled and forged products
- Improves surface finish and response to anodising

STANDARD PACKING

NUCLEANT tablets are available in 50 gm, 100 gm, 250 gm & 500 gm sizes wrapped in poly lined aluminium foils packed in cardboard boxes.

SAFETY PRECAUTIONS

- Store NUCLEANT products in a cool and dry place. Keep them properly covered.
- Avoid inhalation of dust
- Use of protective gloves and nose napkins recommended