

Section 1: Identification of the substance/mixture and of the company
1.1 Product Identifier

Product form: ANKOM RD2 Dryer Neutralizing Filter
 Trade name: Filter
 Synonyms: None
 Catalog Number: RD2
 Appearance: Box Filter

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Filter
 Uses advised against: None known

1.3 Details of the supplier of the Material Safety Data Sheet

Company Name: ANKOM Technology
 Address: 2052 O'Neil Rd., Macedon, NY USA 14502
 Email: service@ankom.com

1.4 Emergency telephone number

(315) 986-3857 8am-5pm EST

Section 2: Hazards Identification
2.1 Classification of the substance or mixture

Classifications: Eye Irritation: 2B H320 Organ Toxicity: SE 3 H335
 Acute aquatic toxicity: Cat1 H400 Chronic aquatic toxicity: Cat1 H410

Adverse physicochemical, human health and environmental effects:

For full text of H and R-phrases, see section 16.

2.2 Label elements according to OSHA

Hazard pictograms (CLP):



Signal word (CLP): Warning

Hazard statements (CLP):
 H302 – Harmful if swallowed.
 H320 – Causes eye irritation.
 H335 – May cause respiratory irritation.

Precautionary statements (CLP):
 P102 – Keep out of reach of children.
 P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.
 P262 – Do not get in eyes, on skin, or on clothing.
 P264 – Wash thoroughly after handling.
 P271 – Use in well ventilated area.
 P273 – Avoid release to the environment.
 P280 – Wear protective gloves, clothing, and eyewear.
 P304+P340 – If INHALED, remove person to fresh air.
 P305+P351+P338 – If in eyes, remove contact lenses and rinse cautiously with water.
 P312 – If exposed or concerned, get medical advice and call Poison Control Center.
 P403+P233 – Store in well ventilated place. Avoid exposing the contents of the filter.
 P405 – Store locked up.
 P501 – Dispose of contents in accordance with local, state, and federal regulations.

2.3 Other hazards

No additional information is available for the Carbon, Calcium Sulfate, Limestone, Silicon Dioxide components.

Carcinogenicity: In 1997, IARC classified inhaled crystalline silica as carcinogenic to humans categorizing it as Group 1 agent. In this evaluation, IARC noted that carcinogenicity was not detected in all industrial circumstances studied and may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs. Carcinogenicity Category 2: Suspected Carcinogen. There are no known mutagenic, teratogenic, nor reproductive effects.

Section 3: Composition / Information on Ingredients (for full text of R, H, and EUH-phrases see section 16)
3.1 Substances

Not applicable

3.2 Mixture

Ingredient Name	% by weight	CAS Number	EC Number
Carbon	51%	7440-44-0	
Calcium Sulfate Dihydrate, Calcium Sulfate Anhydrite, or Dihydrate/Anhydrite blend	38%	7778-18-9	
Limestone	0.75%	1317-65-3	
Silicon Dioxide (Crystalline Silica)	0.25%	14808-60-7	
Zinc	10%	7440-66-6	231-175-3

Section 4: First Aid Measures
4.1 Descriptions of first aid measures

Eye Contact:	Flush eyes with generous amounts of water. Get medical advice/attention if irritation persists.
Skin Contact:	Wash with plenty of soap and water. Wash contaminated clothing before reuse. If dryness occurs, use moisture renewing lotions. If skin has become cracked, take appropriate action to prevent infection and promote healing. If skin reddening or irritation persists, seek medical attention.
Ingestion:	If the material is swallowed, get immediate medical attention or advice. Do NOT induce vomiting unless directed to do so by medical personnel.
Inhalation:	Remove to fresh air and keep in a position comfortable for breathing. Blow nose to evacuate dust. While other measures are usually not necessary, consult a physician if conditions warrant.

4.2 Most important symptoms and effects, both acute and delayed

Eye Contact:	Can cause serious eye damage.
Skin Contact:	May cause skin irritation.
Ingestion:	May be harmful if swallowed.
Inhalation:	May cause respiratory irritation. Inhalation of fumes may cause metal fume fever.

4.3 Indication of any immediate medical attention and special treatment needed

No specific actions are required. However, it is recommended to move to fresh air and blow nose to evacuate dust. If irritations persist, seek medical attention.

Section 5: Fire Fighting Measures
5.1 Extinguishing media

Suitable extinguishing media include dry chemical. Do NOT use water as it will react with Zinc to release flammable Hydrogen gas, which in turn may explode and spread fire.

5.2 Special hazards arising from the substance or mixture

Calcium sulfate decomposes to sulfur dioxide at 1450°C/2642°F. Contact with strong oxidizers such as ozone, liquid oxygen, chlorine, etc. may result in fire. Metal oxides can be released.

5.3 Advice for firefighters

Wear proper gear with self-contained breathing apparatus for firefighting if necessary. Move containers from fire area if you can do it without risk. Cool closed containers exposed to fire. Do not allow run-off from firefighting to enter drains or water courses. Dike for water control.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapors, mist, or gas. Avoid contact with skin and eyes. Ensure adequate ventilation and keep people away from upwind of spill/leak. Wear personal protective equipment in compliance with national legislation. Protect eyes with goggles.

6.2 Environmental precautions

Avoid discharge into the environment. Prevent leakage or spillage. Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Contain spill to prevent material from entering sewage or ground water systems. Remove by dry sweeping, shovel, or vacuum. Avoid creating excessive dust. It is recommended that gloves and a mask be worn while cleaning up a spill. Wear personal protective equipment as specified in Section 8. Dispose of material in a closed container in accordance with all applicable federal, state, and local regulations.

6.4 Reference to other sections

See section 8.

Section 7: Handling and Storage

7.1 Precautions for safe handling

Wet activated carbon removes oxygen from air causing severe hazard to workers inside carbon vessels or confined spaces. Avoid contact with skin and eyes. Avoid airborne vapor or dust generation. Do not breath dust. Keep away from heat. Use only in well ventilated areas. Provide exhaust ventilation at places where airborne dust is generated. In case of insufficient ventilation, wear suitable eye and respiratory protective equipment including a NIOSH approved dust mask. Do not eat, drink, or smoke while working with this material. Wash hands after use. Observe all label precautions and warnings.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of reach of children. Keep containers tightly closed and store packaged products in a dry, cool, and well ventilated place to maintain packaging integrity and product quality.

7.3 Specific end use(s)

No additional information available.

Section 8: Exposure Controls / Personal Protection

8.1 Control parameters

Follow workplace regulatory exposure limits for all types of airborne dust (e.g., total dust, respirable dust) in compliance with applicable federal, regional, and local regulations. Local exhaust and general ventilation must be adequate to meet exposure standards. Wear suitable respiratory equipment in case of insufficient ventilation.

Exposure Guidelines (T = Total, R = Respirable)

Substance	OSHA PEL (TWA)	ACGIH TLV (TWA)
Gypsum, Anhydrite or Gypsum/Anhydrite Blend	15(T)/5 (R)	10
Crystalline Silica	0.1 (R)	0.025 (R)
Limestone	15(T)/5 (R)	10

8.2 Exposure controls

Eye/Face protection:	Eye & face protection devices such as safety glasses are recommended.
Skin protection:	Wear the appropriate protective clothing as needed to prevent skin contact.
Respiratory protection:	Respiratory protection is not required in an adequately ventilated area. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protections.
General hygiene:	Follow typical protective and hygienic practices for handling chemicals including washing hands after handling and before eating or drinking. Remove and wash soiled clothing.
Environmental Exposure Control:	Ventilate to keep exposures below TLV requirements of the individual ingredients. General ventilation is expected to be satisfactory. Use local exhaust ventilation if necessary to control dust. Do not let product enter drains.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance, Color:	Grey/White with BLACK container	Odor:	low
Physical state:	Powder	pH (10% Suspension):	~7
Vapor Pressure:	Not applicable	Vapor Density:	No data available
Boiling point range:	907°C (1665°F)	Melting point:	419.5°C (787°F)
Flash point:	Not applicable	Flammability (solid, gas):	No data available
Flammability Limits:	No data available	Self-ignition temperature:	No data available
Decomposition temperature:	2,642°F (1,450°C)	Spec. Gravity / Relative Density:	2.32-2.41 / 28-33lb/cu ft
Evaporation Rate:	Not applicable	COEFF. - Water/Oil	No data available
Odor Threshold:	No data available	Solubility - Water:	0.205 (g/100g)
Partition Coefficient:	No data available	Viscosity:	No data available
Explosive properties:	No data available	Oxidizing properties:	No data available

9.2 Other information

No additional information available

Section 10: Stability and Reactivity

10.1 Reactivity

Contact with strong oxidizers such as ozone, liquid oxygen, chlorine, etc. may result in fire. Reacts with water and produces large amounts of heat (normal condition of use).

10.2 Chemical stability

The substances in this product are chemically stable under normal conditions. Water will react with zinc to release flammable, hydrogen gas.

10.3 Possibility of hazardous reactions

No known dangerous reactions.

10.4 Conditions to avoid

Water, high humidity, and acids.

10.5 Incompatible materials

Strong oxidizing and reducing agents such as ozone, liquid oxygen, or chlorine.

10.6 Hazardous decomposition products

Carbon monoxide may be generated in the event of a fire. May include, but not limited to calcium oxide and sulfur dioxide due to decomposition at 1450°C/2642°F. Metal oxide fumes.

Section 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity:	The acute oral toxicity study (OECD TG 420) of calcium sulfate showed that this chemical did not cause any changes.
Chronic Effects/ Carcinogenicity:	This product contains crystalline silica. Exposures to respirable crystalline silica are not expected during normal use of this product. However, respirable crystalline silica may cause lung cancer and lung disease (silicosis) if inhaled for prolonged periods. Symptoms of silicosis include wheezing, coughing, and shortness of breath.
LD50 oral rat:	>10000 mg/kg
Eye damage/irritation:	May cause eye irritation if dust gets in eyes.
Skin corrosion/irritation:	Not classified
Ingestion:	Not classified
Respiratory sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Reproductive toxicity:	Not classified
Specific target organ toxicity (single exposure):	May cause respiratory irritation
Specific target organ toxicity (repeated exposure):	Not classified

11.1 Information on toxicological effects (continued)

Aspiration hazard: Not classified

Section 12: Ecological Information
12.1 Toxicity

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment/I

No data available.

12.6 Other adverse effects

Disposal of large quantities directly into waterways would be expected to cause significant aquatic death. Do not allow material to be released to the environment without official permits. Avoid transfer into the environment.

Section 13: Disposal Considerations
13.1 Waste treatment methods

Waste from residues / unused products: Dispose of contents/containers in accordance with local/regional/international regulations.

Packaging: Dispose of packaging in accordance with local/regional/international regulations.

Section 14: Transport Information (in accordance with ADR / RID / ADNR / IMDG / ICAO / IATA)
14.1 UN number

Not regulated as dangerous goods

14.2 UN proper shipping name

Not applicable

14.3 Transportation hazard classes

Not regulated as dangerous goods

14.4 Packing group

Not regulated as dangerous goods

14.5 Environmental hazards

Not regulated as dangerous goods

14.6 Special precautions for user

Not regulated as dangerous goods

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not regulated as dangerous goods

Section 15: Regulatory Information
15.1 Safety, health, and environmental regulations/legislation specific to the substance or mixture
United States (federal and state)

TSCA No.: Carbon appears on the TSCA inventory under the CAS No. 7440-44-0. Calcium Sulfate appears on the TSCA inventory under CAS No. 7778-18-9.

RCRA: This product is NOT classified as a hazardous waste under the Resource Conservation and Recovery Act or its regulations, 40 CFR Sec. 261 et.seq.

CERCLA: This product is NOT classified as a hazardous waste under the regulations of the Comprehensive Environmental Response Compensation and Liability ACT (CERCLA), 40 CFR Sec. 302.

SARA Title III: This product is NOT classified as an extremely hazardous waste under Sections 302 and 304, and is NOT a toxic chemical subject to the requirements of Section 313.

California Proposition 65: Crystalline silica (respirable) is classified as a substance known to the State of California to be a carcinogen.

Canada

WHMIS Classification: Crystalline Silica and Limestone are classified as D2A substances.

Europe (67/548/EEC Annex III and IV)

R36, R37, R38, S37, S38, S39, and S51

15.2 Chemical safety assessment

A chemical safety assessment was not carried out for the mixture specified in this document.

Section 16: Other Information

In 1997, the International Agency for Research on Cancer (IARC) classified inhaled crystalline silica as carcinogenic to humans categorizing it as a Group 1 agent. In this evaluation, IARC noted that carcinogenicity was not detected in all industrial circumstances studied, and may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs. Carcinogenicity Category 2: Suspected Carcinogen. There are no known mutagenic, teratogenic, or reproductive effects.

16.1 Full text of R, H, and EUH-phrases

Eye Irrit. 2B Serious eye damage/eye irritation Category 2B

STOT SE 3: Specific target organ toxicity (single exposure) Category 3

H335: May cause respiratory irritation.

Information in this document is based on our current knowledge and is intended to describe the product for the purposes of health, safety, and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.