



Using White Powder Cleaner

DeScale 433

IMPORTANT: Carefully read and understand these directions, Safety Data Sheets, Technical Data Sheets, and product labels prior to using NuFlo DeScale 433 to remove the Calcium Sulfate from your ceiling.

IMPORTANT: When using this product, wear the provided face shield and rubber gloves. This product may cause serious damage to the eyes. After using this product, wash your hands thoroughly. Synergy is not responsible for any injury or similar as a result of using this process to clean the calcium sulfate from the surface of your ceiling.

WHAT YOU WILL NEED:

1. Bottle of DeScale 433 (Supplied)
2. Face Shield (Supplied)
3. Rubber Gloves (Supplied)
4. Bucket of clean water
5. Rags

CEILING CLEANING PROCEDURE:

1. Put the supplied face shield and rubber gloves on.
2. Set the spray on the bottle to a fan-type pattern. Spray a small section of your ceiling at a time and let it set for 5 minutes.
3. After the 5 minutes are up, wipe the area with a clean wet cloth.
4. Rinse the cloth after each use.
5. Repeat this process on your ceiling.

SPECIAL NOTES:

1. Please note that you can do your entire ceiling with this product, or you can spot clean the areas that have calcium sulfate on them.
2. Around knots, you might consider spraying the DeScale 433 as a stream (by adjusting the nozzle) directly into a knot hole. This will help remove any residual calcium sulfate that is deeper in the wood.

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03.

Issue date 06/06/2019

Reviewed on 06/06/2019

1 Identification

- **Product Identifier**
- **Trade Name: NuFlo DeScale 433**
- **Product Number: ofc-nf433**
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** Scale removal solution for calcium sulfate and other sulfate scales.
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
 NuGenTec Oilfield Chemicals
 1155 Park Avenue, Emeryville, CA 94608
 ofcadmin@nugentec.com www.nugentec.com/oilfield
 888-996-8436 or 707-891-3012 for product information
- **Emergency telephone number:**
 In case of emergency contact your Regional or Local Poison Control Center

2 Hazard(s) Identification

- **Classification of the substance or mixture:**



Eye Dam. 1 H318 Causes serious eye damage.

- **Label elements:**
- **Hazard pictograms:**



- **Signal word:** Danger
- **Hazard-determining components of labeling:**
 Proprietary Chelating Agent
- **Hazard statements:**
 H318 Causes serious eye damage.
- **Precautionary statements:**
 P280 Wear eye protection / face protection.
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a poison center/doctor.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



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· **Hazard(s) not otherwise classified (HNOC):** None known

3 Composition/Information on Ingredients

· **Non-hazardous components:**

	Proprietary Salt	Proprietary%
7732-18-5	Water, distilled water, deionized water	Proprietary%

· **Chemical characterization: Mixtures**

· **Description:** Mixture of substances listed below with non-hazardous additions.

· **Dangerous Components:**

Proprietary Chelating Agent	☠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302	Proprietary%
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· **Additional information:**

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

· **Description of first aid measures**

· **General information:**

Symptoms of poisoning may occur after exposure to dust, fumes or particulates; seek medical attention if feeling unwell.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** If skin irritation continues, consult a doctor.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **Information for doctor**

· **Most important symptoms and effects, both acute and delayed:**

No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

5 Fire-Fighting Measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **For safety reasons unsuitable extinguishing agents:** No further relevant information.

· **Special hazards arising from the substance or mixture:**

If incinerated, product will release the following toxic fumes: Oxides of Carbon, Sodium, Nitrogen (NO_x) and Phosphorous.

· **Advice for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear to prevent contact with skin and eyes.

· **Special protective equipment for firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

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Full protective clothing and self-contained breathing apparatus should be worn.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:**
Prevent from spreading (e.g. by damming-in or oil barriers).
Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
Dispose of the collected material according to regulations.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
Store away from strong acids, strong bases, strong oxidizing agents, reactive metals (Zinc & Aluminum) and their alloys (Brass, etc.), Copper and its alloys, Nickel and galvanized surfaces.
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
Store between 10 °C (50 °F) and 60 °C (140 °F).
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use local exhaust at filling zones and where leakage and dust formation is probable. Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.
- **Components with occupational exposure limits:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

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- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:**
*The usual precautionary measures for handling chemicals should be followed.
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing and wash before reuse.
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes.*
- **Breathing equipment:** Not required.
- **Protection of hands:** Not required.
- **Material of gloves:** Not required.
- **Penetration time of glove material:** Not applicable.
- **Eye protection:**



Tightly sealed goggles

9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

- | | |
|--------------------------|------------------|
| · Form: | Liquid |
| · Color: | Clear, colorless |
| · Odor: | Mild |
| · Odor threshold: | Not determined. |

· **pH-value @ 20 °C (68 °F):** 8

· **Change in condition**

- | | |
|---------------------------------------|-----------------|
| · Melting point/Melting range: | Not determined. |
| · Boiling point/Boiling range: | 100 °C (212 °F) |

· **Flash point:** None

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** Not applicable

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not self-igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

- | | |
|-----------------|-----------|
| · Lower: | 0.0 Vol % |
| · Upper: | 0.0 Vol % |

· **Vapor pressure @ 20 °C (68 °F):** 23 hPa (17.3 mm Hg)

· **Density @ 20 °C (68 °F):** 1.117 g/cm³ (9.3214 lbs/gal)

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Trade Name: NuFlo DeScale 433

· Relative density:	Not determined.
· Vapor density:	Not determined.
· Evaporation rate:	Not determined.
· Solubility in / Miscibility with:	
Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
Water:	80.0 %
· Solids content:	19.6 %
· Other information:	No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:**
Strong acids, strong bases, strong oxidizing agents, reactive metals (Zinc & Aluminum) and their alloys (Brass, etc.), Copper and its alloys, Nickel and galvanized surfaces.
- **Hazardous decomposition products:** Oxides of Carbon, Sodium, Nitrogen (NOx) and Phosphorous.

11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**

Proprietary Chelating Agent		
Oral	LD50	630-1,260 mg/kg (Rat)
Proprietary Salt		
Oral	LD50	7,110 mg/kg (Rat)

- **Primary irritant effect:**
- **On the skin:** No irritating effect.
- **On the eye:**
Strong irritant with the danger of severe eye injury.
Causes serious eye irritation.

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Trade Name: NuFlo DeScale 433

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

· **Carcinogenic categories:**

· **IARC (International Agency for Research on Cancer):**

Substance is not listed.

None of the ingredients are listed.

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

None of the ingredients are listed.

12 Ecological Information

· **Toxicity:** The hazards for the aquatic environment are unknown.

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability:** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential:** No further relevant information available.

· **Mobility in soil:** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

· **Results of PBT and vPvB assessment:**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

· **Waste treatment methods**

· **Recommendation:**

Small amounts may be diluted with plenty of water and washed away. Dispose of larger amounts in accordance with Local Authority requirements.

Observe all federal, state and local environmental regulations when disposing of this material.

· **Uncleaned packaging**

· **Recommendation:** Disposal must be made according to official regulations.

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Trade Name: NuFlo DeScale 433

14 Transport Information

· UN-Number:	
· DOT, ADR/ADN, ADN, IMDG, IATA	Non-Regulated Material
· UN proper shipping name:	
· DOT, ADR/ADN, ADN, IMDG, IATA	Non-Regulated Material
· Transport hazard class(es):	
· DOT, ADR/ADN, ADN, IMDG, IATA	
· Class:	Non-Regulated Material
· Packing group:	
· DOT, ADR/ADN, IMDG, IATA	Non-Regulated Material
· Environmental hazards:	Not applicable.
· Special precautions for user:	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not applicable.
· UN "Model Regulation":	Non-Regulated Material

15 Regulatory Information

· Safety, health and environmental regulations/legislation specific for the substance or mixture:		
· SARA (Superfund Amendments and Reauthorization):		
· Section 355 (extremely hazardous substances):		
None of the ingredients are listed.		
· Section 313 (Specific toxic chemical listings):		
None of the ingredients are listed.		
· TSCA (Toxic Substances Control Act):		
	Proprietary Chelating Agent	ACTIVE
	Proprietary Salt	ACTIVE
	Proprietary Salt	ACTIVE
	Proprietary Surfactant	ACTIVE
7732-18-5	Water, distilled water, deionized water	
· California Proposition 65:		
· Chemicals known to cause cancer:		
None of the ingredients are listed.		
· Chemicals known to cause reproductive toxicity for females:		
None of the ingredients are listed.		
· Chemicals known to cause reproductive toxicity for males:		
None of the ingredients are listed.		
· Chemicals known to cause developmental toxicity:		
None of the ingredients are listed.		

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Trade Name: NuFlo DeScale 433

· **New Jersey Right-to-Know List:**

None of the ingredients are listed.

· **New Jersey Special Hazardous Substance List:**

None of the ingredients are listed.

· **Pennsylvania Special Hazardous Substance List:**

None of the ingredients are listed.

· **Carcinogenic categories:**

· **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· **TLV (Threshold Limit Value established by ACGIH):**

None of the ingredients are listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health):**

None of the ingredients are listed.

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms:**



· **Signal word: Danger**

· **Hazard-determining components of labeling:**

Proprietary Chelating Agent

· **Hazard statements:**

H318 Causes serious eye damage.

· **Precautionary statements:**

P280 Wear eye protection / face protection.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a poison center/doctor.

· **National regulations:**

None of the ingredients are listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Date of last revision/ revision number:** 06/06/2019 / -

· **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

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Trade Name: NuFlo DeScale 433

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety & Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Tox. 4: Acute toxicity – Category 4

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

· * **Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106

US

NuFlo® DeScale 433

Technical Data Sheet Patent Pending

NuFlo® DeScale 433

Scale removal solution for calcium sulphate and barium sulphate.

Description:

NuFlo® DeScale 433 is highly concentrated; high strength scale remover. It is effective at removing Barium (BaSO_4), Calcium (CaSO_4), Magnesium (MgSO_4) and Strontium Sulphate (SrSO_4) scale from oil and gas applications including wells, perfs, pumps, rods, tubing, and pipelines.



NuFlo® DeScale 433 operates at a neutral pH and will not harm mild steel or galvanized surfaces, and eliminates other descale options that require extremes in pH to be effective. **NuFlo® DeScale 433** is also used to prevent the build-up of sulphate and other types of scale from forming due to its unique chelation ability keeping the salts soluble in the water phase. **NuFlo® DeScale 433** has been designed to have an extremely high thermal stability allowing for scale removal at temperatures as high as 550 °F, making it an excellent choice for steam flood operations. This one of a kind sulphate scale remover is only available from NuGenTec Oilfield Chemicals.

Product Benefits

- Dissolves scale on contact
- No corrosion issues
- Water based, non-regulated
- Easy disposal
- Little downtime
- No manned-entry
- Economical
- Patent pending

Physical Properties



NuFlo[®] DeScale 433

BULK DENSITY	9.32 #/gal
SPECIFIC GRAVITY @ 20 °C	1.118 g/cm ³
FREEZE/THAW STABLE	YES
THERMAL STABILITY in °F	Up to 550 °F
ODOR	MILD
FLASH POINT (°C)	NONE
SOLUBILITY IN WATER	Complete
MELTING POINT / FREEZING POINT	7 °C (45 °F)
BOILING POINT	>100 °C (212 °F)
pH	7.8
APPEARANCE and COLOR	Clear Colorless Liquid

Availability: 55-gallon, 275-gallon tote-bins, and bulk tankers.

Shipment: Non-Hazardous for transport via DOT, IMDG, and IATA.

Storage: Keep out of direct sunlight. Keep from freezing. Store between 40-120°F.

Disposal: Dispose of in accordance with local, state, and federal regulations.

**1155 Park Avenue
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(888) 996-8436
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EMERGENCY OVERVIEW:

This product may cause serious damage to the eyes.

SAFETY:

Please make sure you have read and understand the product label and SDS before using this product. Use proper chemical hygiene when handling product. Wash thoroughly after handling. Observe label precautions. This product is classified and labeled according to the Globally Harmonized System (GHS).

About the Chemistry



NuFlo[®] DeScale 433 overcomes prior problems of other sulphate scale treatment chemistries by creating an inexpensive, effective metal sulphate scale treatment solution that is incredibly effective at dissolving metal sulphate scales such as barium sulphate, calcium sulphate, strontium sulphate and magnesium sulphate. NuFlo[®] DeScale 433 can be used at dilution and still be highly effective, especially on metal sulphate scales that are coated and/or interspersed with common organic deposits such as paraffins and asphaltenes. By using a proprietary dissolving chemistry with both polar and nonpolar solubility properties, and a synergistic blend of chelating agents, dispersants and wetting agents, NuFlo[®] DeScale 433 performs in the fastest, most efficient, and broadest applications of similar treatment chemistries to date.

NuFlo[®] DeScale 433 versus Traditional Treatment Methods

Product	Conc. (%)	pH	T (°C)	Volume (mls)	CaSO ₄ Dissolved (g)	Reaction Time Required (Mins, Secs.)
NuFlo [®] DeScale 433	20	7.8	80-85	50	6.0	12 minutes, 11 seconds
EDTA Na ₄ , 39%	100	> 11.5	80-85	50	6.0	47 minutes, 48 seconds
GLDA Na ₄ 38%	100	> 11.5	80-85	50	6.0	45 minutes, 12 seconds
K5DPTA, 40%	100	> 11.5	80-85	50	6.0	41 minutes, 33 seconds
HCl, 31%	100	< 1.0	80-85	50	6.0	No reaction in > 336 hours

NuFlo[®] DeScale 433 works to dissolve inorganic scale, while simultaneously penetrating and dissolving scale that is partially covered by organic deposits such as paraffins and asphaltenes. However, NuFlo[®] DeScale 433 works best when used on inorganic scale that has had organic deposits removed from their surfaces by NuGenTec Oilfield Chemicals' paraffin and asphaltene remover, NuFlo[®] 187, allowing for direct attack and dissolution of scale by NuFlo[®] DeScale 433.

Metal Sulphate Scale Treatment Method Using NuFlo[®] 187 and NuFlo[®] DeScale 433

- 1) Pretreatment of paraffin and asphaltene covered scale by NuFlo[®] 187.
 - a) Run NuFlo[®] 187 at dilution in diluent such as Diesel, or up to 100% by volume concentration.
 - b) Heat, recirculation and extended dwell times recommended, if possible.
- 2) Flush with fresh water to clear out dissolved hydrocarbons and to rinse scale surfaces, allowing for maximum effect of sulphate scale dissolution treatment by NuFlo[®] DeScale 433.
- 3) Treatment of metal sulphate scale with NuFlo[®] DeScale 433
 - a) Run NuFlo[®] DeScale 433 at dilution in fresh water diluent, or up to 50% by volume concentration.
 - b) Recommended to maintain temperatures of at least 70 °C, if possible.
 - c) Heat, recirculation, and extended dwell times recommended, if possible.

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