

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name : Nutricote 20-5-10
General Use : Fertilizer
Product Description : Compound fertilizer
SDS Number : CF-20-5-10

MANUFACTURER

Company Name: JCAM AGRI. Co.,Ltd.
Address : 6-6, Kandasudacho 2-chome, Chiyoda-ku, Tokyo, Japan
Telephone No. : +81-3-5297-8905

Distributed by
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EMERGENCY TELEPHONE NUMBER :

Company Name: JCAM AGRI. Co.,Ltd.
Address : 6-6, Kandasudacho 2-chome, Chiyoda-ku, Tokyo, Japan
Telephone No. : +81-3-5297-8905

CHEMTREC
1-800-424-9300 CCN843603

2. SUMMARY OF HAZARDS AND TOXICITIES

GHS CLASSIFICATION

PHYSICAL AND CHEMICAL HAZARDS

Flammable solid : Not classified
Phyrophoric solid : Not classified
Oxidizing solid : Not classified
Corrosive to metal : Not classified

HEALTH HAZARDS

Acute toxicity(oral) : Not classified
Acute toxicity(skin) : Not classified
Acute toxicity(inhalation) : Not classified
Dermal corrosion /irritation : Not classified
Serious eye damage / irritancy : Classification 2A
Respiratory sensitivity : Classification not possible
Skin sensitivity : Classification not possible
Gem cell mutagenicity : Classification not possible
Carcinogenicity : Classification not possible
Reproductive toxicity : Classification not possible
Specific target organ systemic toxicity (Single exposure)
: Classification not possible
Specific target organ systemic toxicity (Repeated exposure)
:Classification 1(blood), Classification 2(respiratory)

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Aspiration hazard : Classification not possible
ENVIRONMENTAL HAZARDS

Acute hazardous to the aquatic environmental :Not classified
Chronic hazardous to the aquatic environmental :Not classified

GHS LABEL ELEMENT

PICTOGRAM



SIGNAL WORD : Danger

HAZARD STATEMENT

Strong eyes stimulation
Prolonged or repetitive exposure causes organ failure (blood)
Prolonged or repetitive exposure might cause organ failure (respiratory)

PRECAUTIONARY

Do not inhale.
Wash your hands thoroughly after handling this product.
Do not eat, drink or smoke when using this product.
Wear protection gloves, protection clothes, protection glasses, a protection side.
In case of dust or granule in the eyes, flush with plenty of running water.
When you wear a contact lens next and can take it off easily, take it off. Continue washing it afterwards.
Consult a doctor when the stimulation of eyes continues.
Consult a doctor when you feel sick.
Dispose of wastes in a manner that is in accordance with the law and regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a compound fertilizer coated with polyolefin type resin.

Chemical Composition (Typical Analysis)

Chemical Name	wt%	CAS No.	Chemical Formula
Ammonium Sulfate	2.0	7783-20-2	(NH ₄) ₂ SO ₄
Ammonium Nitrate	53.9	6484-52-2	NH ₄ NO ₃
Monobasic Ammonium Phosphate	8.2	7722-76-1	NH ₄ H ₂ PO ₄
Calcium Phosphate	1.6	7757-93-9	CaHPO ₄
Potassium Sulfate	18.8	7778-80-5	K ₂ SO ₄

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Silica	0.9	69012-64-2	SiO ₂
Gypsum	1.4	10101-41-4	CaSO ₄ 2H ₂ O
Others *1	1.7	—	—
Polyolefin *2	5.7	—	—
Talc	5.8	14807-96-6	—

*1 Others contain salts of Water etc.

*2 Polyolefin contains polyethylene etc.

4. FIRST AID MEASURES

INHALATION : In case of accidental inhalation of fumes from overheating or combustion, move to fresh air. If needed, seek medical attention.

EYE : In case of dust or granule in the eyes, flush with plenty of running water.

SKIN : Wash thoroughly with soap and water.

INGESTION : If conscious, give plenty of water to drink and provoke vomiting.
If needed, call a doctor.

PROTECTION TO FIRST-AIDERS : Not Applicable

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: Material is essentially non-flammable.

EXTINGUISHING MEDIA: Water

FIRE FIGHTING INSTRUCTIONS:

Remove the product from combustible materials as it may support combustion of them.

When heated to decomposition, it emits toxic fume of NO_x, SO_x and ammonia.

Remove the product from the source of fire.

If it is difficult to move, flush with plenty of water.

Do not enter fire area without self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

LAND SPILL: Sweep up and shovel into suitable containers for disposal.

Avoid contact with combustibles. Reuse as fertilizer, if possible.

WATER SPILL: Keep out of water supplies, lakes, ponds, streams and rivers.

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7. HANDLING AND STORAGE

HANDLING: Handle in accordance with good industrial hygiene and safety practice.
Avoid mixing with fuels, other combustible materials and strong alkaline agents.

STORAGE: The product is hygroscopic and should therefore be stored in a dry place.
Store away from reducing agents. Keep out of reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMIT VALUES: Not Established

EXPOSURE CONTROLS

Occupational Exposure Controls

Engineering Controls: No specific controls are needed.

Personal protection: Normally not required. In extremely dusty conditions, appropriate protective equipment is recommended.

Respiratory Protection : Dust mask with particle filter

Hand Protection : Rubber gloves

Eye Protection : Safety goggles

Skin Protection : Normal clean work clothing

Environmental Exposure Controls

Not Available

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Solid, Grey granules
Odor	: Odorless
pH	: 4.9 (10% Aq.)
Melting point/Melting range	: Not Applicable
Decomposition temperature	: Not Applicable
Flash point	: >220°C
Flammability	: None
Relative Density	: \approx 1.1 g/cm ³ (Bulk Density)
Solubility	: Fertilizer inside the coating dissolves in water gradually.

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10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: High Heating. See section 5.

STABILITY: Stable

MATERIALS TO AVOID: Strong alkaline agents

HAZARDOUS REACTIONS/ DECOMPOSITION PRODUCTS:

Nitrogen oxides (NO_x), Sulfur oxides (SO_x), Ammonia

11. TOXICOLOGICAL INFORMATION

Acute toxicity(oral) : Not classified

There is harmful information, such as the following for the following substances is a constituent.

<Ammonium nitrate>

Rat LD50 values: 2000-2950mg/kg(OECD TG 401)(SIDS(2007)), 4820mg / kg (ECETOC TR 27 (1988)). (GHS classification: Not classified)

As this constituent was not classified, we have concluded that this was not classified.

Acute toxicity(skin) : Not classified

There is harmful information, such as the following for the following substances is a constituent.

<Ammonium nitrate>

For a rat LD50 price (OECD TG 402), > 5,000 mg/kg (SIDS (2007))) Based on report, it was said that it was out of division. New source of information (SIDS (2009))) I added and reviewed division. (GHS classification: Not classified)

As this constituent was not classified, we have concluded that this was not classified.

Acute toxicity(inhalation) : Not classified

There is harmful information, such as the following for the following substances is a constituent.

<Ammonium nitrate>

Rat LC50 (4 hours) value:> 88.8mg / L (IUCLID, 2000). (GHS classification: Not classified)

As this constituent was not classified, we have concluded that this was not classified.

Dermal corrosion / irritation : Not classified

There is harmful information, such as the following for the following substances is a constituent.

<Ammonium nitrate>

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There were multiple reports of the skin acidity examination that applied this material to a rabbit for four hours and was a slight irritating result that there was it or there was no acidity (SIDS (2009), IUCLID (2000)) . (GHS classification : Not classified)
As this constituent was not classified, we have concluded that this was not classified.

Serious eye damage / irritancy : Classification 2A

There is harmful information, such as the following for the following substances is a constituent.

<Ammonium nitrate>

In the eyes acidity examination that applied these 100 mg of materials (99.9% of purity) to a rabbit, corneal clouding, iritis, a conjunctiva flare were accepted, and the corneal clouding and the iritis showed recovery characteristics in all animals seven days after an application. On the other hand, 48 (ECETOC TR (1992)) which the conjunctiva flare was not restored by application seven days later, but were completely restored ten days later . In addition, (HSDB (Access on September 2014)) with mention that this material has acidity for eyes of the Homo sapiens . (GHS classification: Classification 2A)

As this constituent was Classification 2A, we have concluded that this was Classification 2A.

Respiratory sensitivity : Classification not possible No data

Skin sensitivity : Classification not possible No data

Gem cell mutagenicity : Classification not possible

There is a hazard information such as the following for the following substances is a constituent.

<Ammonium nitrate>

Negative in the chromosomal aberration test of the mouse myeloblast of In vivo (SIDS (2009)) .

Negative in a bacterial reverse mutation test in vitro (SIDS (2009), IUCLID (2000), HSDB (Access on September 2014) .

(GHS classification: Classification not possible)

As this constituent was Classification not possible, we have concluded that this was Classification not possible.

Carcinogenicity : Classification not possible

There is a hazard information such as the following for the following substances is a constituent.

<Ammonium nitrate>

No data available. It should be noted, IARC (IARC Vol.94 (2010)) reported that nitrate intake by human is uncertain to cause cancer. However, it says that the carcinogenicity is evaluated as 2A in a condition when nitrate or nitrite become Nitroso in vivo. The comprehensive evaluation of IARC also reports that "The conversion of nitrate and nitrite occurs inside the human body. Nitroso arising from nitrite under acidic conditions of the

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digestive tract is immediately changed to N-nitroso compound together with amide having a high tendency to turn to Nitroso.

If intake nitrate, nitrite, or nitroso compounds further, nitrosation of these materials is even promoted. Under such conditions, some type of N-nitroso compound happens to cause a carcinogen.”(GHS classification: Classification not possible)

As this constituent was Classification not possible, we have concluded that this was Classification not possible.

Reproductive toxicity : Classification not possible

There is a hazard information such as the following for the following substances is a constituent.

<Ammonium nitrate>

With the report that there is not the teratogenicity in the teratogenic examination by the oral route using the rat (SIDS (2009)). However, in SIDS (2009), I do not use it for an evaluation because the details are unclear. (GHS classification : Classification not possible)

As this constituent was Classification not possible, we have concluded that this was Classification not possible.

Specific target organ systemic toxicity (Single exposure) : Classification not possible

There is a hazard information such as the following for the following substances is a constituent.

<Ammonium nitrate>

There is not the report indicating the toxic influence on Homo sapiens by the inhalational course of this material and the oral route. In addition, there are not the data of the laboratory animal. In addition, I did not adopt the data of the old classification this time because the old classification was knowledge about the sodium nitrate which was not this material. (GHS classification: Classification not possible)

< Silica Fumes >

Report (ACGIH (7th, 2001) that this material has respiratory tract acidity, ECETOC JACC (2006)) But, there is it. (GHS classification: classification 3 (respiratory))

Though silica Fumes is classification 3 (respiratory) in GHS classification, we have concluded that these constituents are not classified as their concentration is not more than 20%.

As these constituents were Classification not possible, we have concluded that this was Classification not possible.

Specific target organ systemic toxicity (Repeated exposure) :

Classification 1(blood) , Classification 2(respiratory)

There is a hazard information such as the following for the following substances is a constituent.

<Ammonium nitrate>

There is not the toxic information of this material in itself.

High density (more than 100,000ppm:) out of the division in the examination that blend bait gave sodium nitrate to a rat for six weeks In 5,000mg/kg/day equivalency), the color change

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of blood with the methemoglobin and the spleen was seen (SIDS(2009)).

Blood methemoglobin density increased in the sodium nitrite dosage in 1-35% for 0-2% in the sodium nitrate dosage as a result that water to drink gave sodium nitrate or sodium nitrite to a rat by the density of 4,000 mg/L for 14 months (SIDS(2009)), and it followed that I supported a hypothesis (ECETOC TR 27(1988)) in the Homo sapiens that blood methemoglobin density increased by the nitrite which generated it in intestinal tract after oral administration of the nitric and produced cyanosis. (GHS classification: category 1 (blood))

< Silica Fumes>

I wake up a recurrent temperature such as the metal fume heat with the X-rays views that are similar to silicosis by absorption revelation of chronicity or the repetition in a person. However, the change of the lungs is known to be restored naturally (ACGIH(7th,2001).

By the experiment that I absorb 15 mg/m³ (0.015 mg/L) for 12-18 months, and was exposed to a rat, a marmot, a monkey in a laboratory animal, increase of the aggregate of the short nucleus cell of the lungs, Reticular fiber are seen in even which animal class, and a collagen fiber is seen in the monkeys more (DFGOT vol.2 (1991)). It was said that it was Classification 1(respiratory) than the above.

The component mentioned above was Classification 1(respiratory), and it was said that it was Classification 2(respiratory) because ingredient density was 1~10%.

As these constituents are Classification 1(blood), Classification 2(respiratory), we have concluded that these are Classification 1(blood), Classification 2(respiratory).

Aspiration hazard : Classification not possible No data

ENVIRONMENTAL HAZARD

Acute hazardous to the aquatic environmental :Not classified

There is a hazard information such as the following for the following substances is a constituent.

<Ammonium nitrate>

Fish (Chinook salmon, rainbow trout, bluegill) : 96 hours LC50 = 420-1360 mg NO₃ / L (SIDS, 2007) (in terms of ammonium nitrate concentration: 542-1756mg / L)

Crustacean (Daphnia magna) : 24-hour EC50 = 555mg / L in (SIDS, 2007).

(GHS classification: Not classified)

As this constituent was not classified, we have concluded that this was not classified.

Chronic hazardous to the aquatic environmental :Not classified

There is a hazard information such as the following for the following substances is a constituent.

<Ammonium nitrate>

Rather than a poorly water-soluble (water solubility = 2,000g / L (SIDS, 2007)), has a low acute toxicity.(GHS classification: Not classified)

As this constituent was not classified, we have concluded that this was not classified.

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12. ECOLOGICAL INFORMATION

ECOTOXICITY: Large amounts of product released to water systems will be harmful to aquatic plant and animal life.

PERSISTENCE AND DEGRADABILITY:

Fertilizer granules are soluble in water and biodegradable.

Coating materials are persistent and not biodegradable.

BIOACCUMULATIVE POTENTIAL: Not available.

HME : corresponds.

13. DISPOSAL CONSIDERATIONS

Safe disposal methods: Uncontaminated product may be reused as fertilizer.

Classify waste under applicable federal, state and local regulations.

Do not dump this product into sewers, on the ground or into any body of water.

14. TRANSPORT INFORMATION:

Since the situations may be difference case by case and the description below may not always apply, please consult 49 CFR or other regulations for dangerous goods for additional description requirement(e.g. technical name) and mode- or quantity- specific shipping requirements.

DOT: Land - Not regulated
Air - Not regulated
Vessel - Not regulated

IMDG: - Not regulated

ICO/IATA: - Not regulated

TDG: - Not regulated

15. REGULATORY INFORMATION

We use it according to a law of the country to use.

16. OTHER INFORMATION

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This information is furnished without warranty, express or implied, except that it is accurate to the best knowledge of JCAM AGRI. Co., Ltd.

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