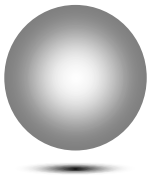
CAMZ-S

Arsenic absorbent material for polluted soil

AMRON Corporation

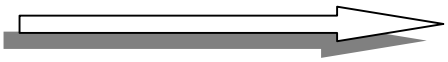
◆What is CAMZ-S

CAMZ-S is an arsenic absorbent assumed to be a main ingredient of an artificial zeolite.
It becomes possible to make strong arsenic adsorption power appear by giving the special process to the surface of an artificial zeolite.
Moreover, it has high arsenic adsorption capacity by making the best use of a wide surface area that is one of the feature of artificial zeolite.

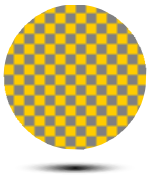


artificial zeolite

Special processing on surface



- Synthesis of low crystalline iron compound complex.
- Change in surface charge of artificial zeolite .



CAMZ-S

◆Feature of CAMZ-S

1 High efficiency of arsenic adsorption

Because it is not a physical adsorption and the arsenic is chemically adsorbed, it is possible to adsorb strongly.

2 High adsorption capacity

Because the amount of the arsenic adsorption near the unit is large, processing by a little amount of the adsorbent addition is possible.

3 Simple use

It is not necessary to use together with other medicines basically, and it is possible to process it only with CAMZ-S.

4 Low negative environmental impact

An artificial zeolite (cycloid type resource/no include of injurious contents) is a principal ingredient, so there is no danger of collateral contamination. And there is no load given to the processing ground.

5 Achieved processing with high stability

This strongly catches the adsorbed arsenic. The arsenic can be insolubilized with stability under the situation in which the load hangs.

6 Correspondence with the wide range of pH

An adsorption ability is demonstrated steadily in the wide ph range (ph/4-10). Basically, it is not necessary to adjust the ph of the soil as a preprocessing.

CAMZ-S
shape : slurry
water content : about 78%
product pH : 3.5～4.5
apparent specific gravity : 1.15g/mL

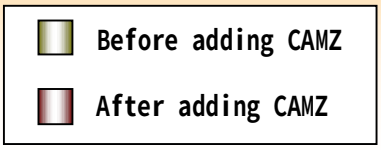
element	content(wt%)	element	content(wt%)
SiO_2	21.7	K_2O	0.6
Al_2O_3	18.3	CaO	2.0
Fe_2O_3	23.0	TiO_2	0.2
Na_2O	6.3	SO_3	25.6

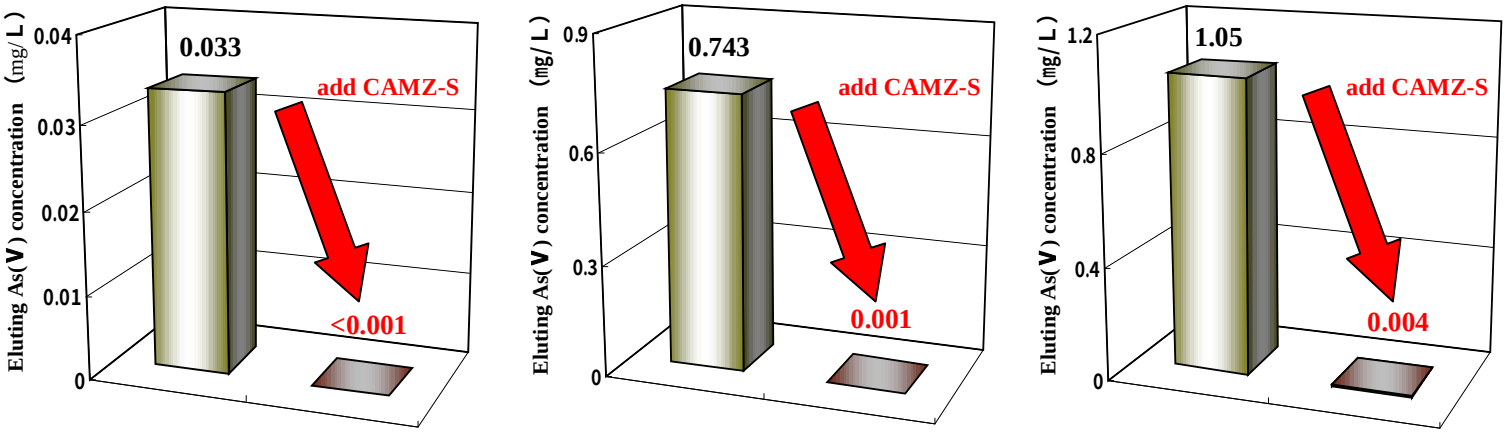
※The solid material element is written.

◆Elutingu examination

[eluting examination]
①Add CAMZ-S into the mock polluted soil at the rate of 4.6wt%, and it mix homogeneously. Afterwards, leave with the room temperature for 24 hours.

②Measure the concentration of arsenic elution based on the 46th elution test of which the Ministry of the Environment notified.





●It is possible to decrease the elution level below the environmental standard.

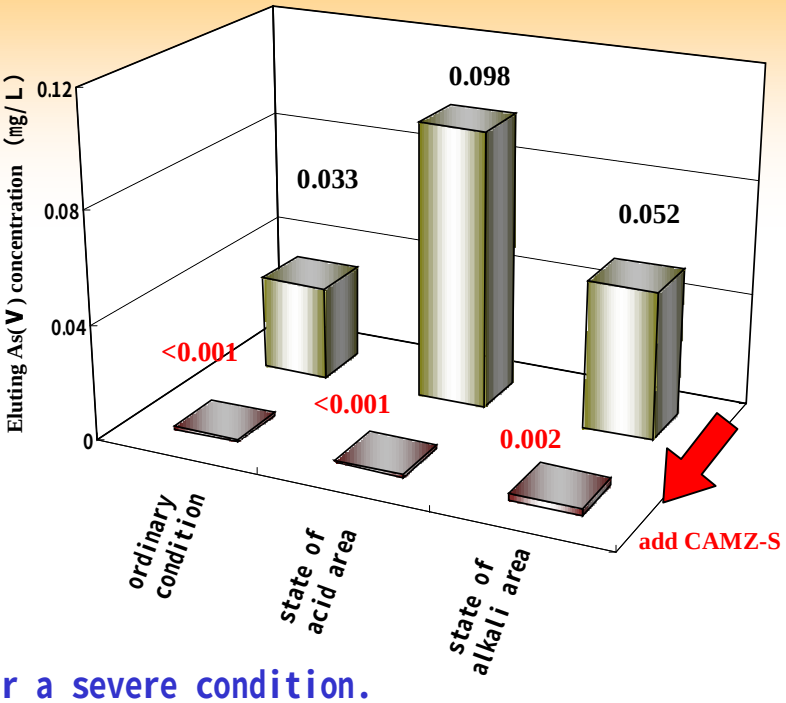
◆Stability examination

[stability examination]
①Add CAMS-S into the mock polluted soil at the of 4.6wt% and it mix homogeneously. Afterwards,leave with the room temperature for 24 hours.

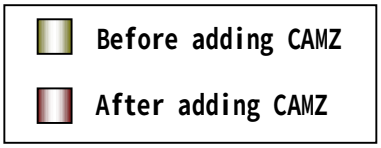
②The acid/alkaline solution made for a constant concentration and the soil are mixed at the rate of 10w/v%.
※Acid solution=H_2SO_4 , Alkaline solution=$Ca(OH)_2$

③Elute is to be taken with the same operation of which the Ministry of the Environment notified.

④The filtration liquid made by ③ is collected, and the concentration of arsenic of the solution is measured.



●A steady performance is demonstrated under a severe condition.



AMRON Corporation
Environmental department
2296-1.Yasuharashimo,Kagawa-cho,Takamatsu City,
Kagawa Prefecture,Japan
Tel:087-879-2089 Fax:087-840-5377
URL：http://www.amron.co.jp/camzs/index.html