PROCEDURE: (Cont'd)

Compound D (% by wt.)

Zirconium	32.9
Fluorine	39.3
Potassium	27.4
Total	99.6

This composition corresponds to a compound of formula K_2ZrF_6 for which the theoretical composition by weight is:

K_2ZrF_6

Zirconium	32.2
Fluorine	40.2
Potassium	27.6
Total	100.0

Neutron activation analysis showed that Alodine 1200 contained 0.07%, by wt.. of uranium. No chlorides, sulfates or carbonates were found.

Identification is as follows:

Compound A,	chromic acid, CrO_3	47.7%
Compound B,	sodium fluoborate, $NaBF_4$	21.2%
Compound C,	potassium ferricyanide, $K_3Fe(CN)_6$	20.3%
Compound D,	potassium hexafluozirconate, K_2ZrF_6	10.7%

Plus 0.07% uranium

REFERENCES:

NTL #34-55A
Case #53738, Film 6950
DTR 2094, pages 37-39
DTR 3427, page 3
DTR 2313, page 35

Zirconium - Gravimetric mandelic acid method; Furman, N. H., Scott's Standard Methods of Chemical Analysis, 6th Edition, Princeton, New Jersey, D. Van Nostrand Co. Inc., 1962.

Fluorine - Volumetric thorium nitrate method, DLP 13.500

Potassium - Flame photometric method using a Beckman DU Spectrophotometer with flame attachment. Dean, J. A., Flame Photometry, New York, New York, McGraw-Hill Book Co. Inc.