

Title (en)

Non-toxic, heavy metal-free zinc peroxide-containing IR tracer compositions and IR tracer projectiles containing same generating a dim visibility IR trace

Title (de)

Nichttoxische, schwermetallfreie zinkperoxidhaltige IR-Tracer-Zusammensetzungen und IR-Tracer-Projektile damit zur Erzeugung einer schwach sichtbaren IR-Spur

Title (fr)

Compositions de traceur IR sans métaux lourds, non toxiques, contenant un peroxyde de zinc, et projectiles à traceur IR les contenant utilisés pour générer une trace IR de faible visibilité

Publication

EP 2360134 A3 20120919 (EN)

Application

EP 11166798 A 20060328

Priority

- EP 06721718 A 20060328
- US 9836805 A 20050405

Abstract (en)

[origin: US2006219339A1] Novel non-toxic, metallic-metal free, zinc peroxide-containing, IR tracer compositions are provided herein, which, when incorporated into a medium caliber IR tracer projectile and fired, produce a dim visibility IR trace. Such IR tracer compositions comprise from about 26 to about 30% by weight, or from about 65 to about 80% by weight, of zinc peroxide; from about 40 to about 47% by weight of potassium nitrate; from about 10 to about 25% by weight of a non-metallic fuel which consists of sodium salicylate; from about 5 to about 26% by weight of a retardant which consists of either iron carbonate or magnesium carbonate or calcium carbonate; and from about 5 to about 10% by weight of at least one binder which is either calcium resinate, or a synthetic resin binder which consists of a copolymer of hexafluoropropylene and vinylidene fluoride, or from about 5 to about 7.5% by weight of cellulose acetate butyrate. The total percentage of the ingredients adds up to 100%. Medium caliber, i.e., 0.50 caliber, IR tracer projectiles containing such IR tracer compositions are also provided.

IPC 8 full level

C06B 23/04 (2006.01); **C06B 33/00** (2006.01); **C06C 15/00** (2006.01)

CPC (source: EP US)

C06C 15/00 (2013.01 - EP US)

Citation (search report)

- [A] US 5639984 A 19970617 - NIELSON DANIEL B [US]
- [A] US 4363679 A 19821214 - HAGEL RAINER, et al
- [A] US 1708187 A 19290409 - MEEK STERNER ST P
- [A] US 4128443 A 19781205 - PAWLAK DANIEL E, et al
- [A] US 6036794 A 20000314 - DORIS JR THOMAS A [US], et al
- [AD] US 4597810 A 19860701 - TRICKEL NEAL E [US], et al
- [AD] US 5811724 A 19980922 - HENRY III GUY H [US], et al
- [A] WO 0064840 A1 20001102 - DYNAMIT NOBEL AG [DE], et al

Cited by

CZ304078B6; US10752561B2

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