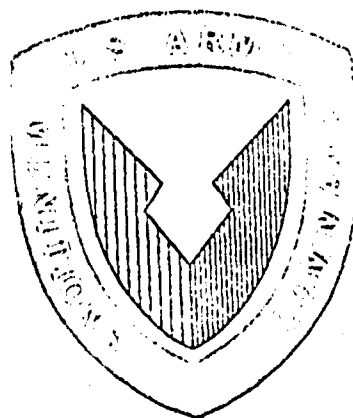


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COMPILATION
OF
INFRARED SPECTRA OF INGREDIENTS
OF
PROPELLANTS AND EXPLOSIVES

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INDEX TO INFRARED SPECTRA OF
INGREDIENTS OF PROPELLANTS AND EXPLOSIVES

| <u>NAME(S)</u> | <u>CODE</u> |
|--|-----------------|
| Pentaerythryl Tetraacetate | AC 1 |
| Sucrose Octaacetate | AC 2 |
| Glycerol Triacetate (Triacetin) | AC 3 |
| Ethylene Glycol Monomethyl Ether Acetate (Methyl Cellosolve Acetate) | AC 4 |
| Diphenylamine | Amine 1 |
| N-Nitrosodiphenylamine | Amine 2 |
| Para-Nitrosodiphenylamine | Amine 3 |
| 2-Nitrodiphenylamine | Amine 4 |
| 4-Nitrodiphenylamine | Amine 5 |
| 2,4-Dinitrodiphenylamine | Amine 6 |
| 2,4' Dinitrodiphenylamine | Amine 7 |
| Diethyl Maleate | Ester 1 |
| Di-N-Butyl-d-Tartrate | Ester 2 |
| Diethyl-d-Tartrate | Ester 3 |
| Diethyl Hexanedioic Acid Ester (Diethyl Adipate) | Ester 4 |
| Dimethyl Hexanedioic Acid Ester (Dimethyl adipate) | Ester 5 |
| Diethyl Carbonic Acid Ester (Diethyl Carbonate) | Ester 6 |
| Triethyl Citrate | Ester 7 |
| Diethyl Fumarate | Ester 8 |
| Decanedioic Acid Ethyl Hexyl Ester (Ethyl Hexyl Sebacate) | Ester 9 |
| Decanedioic Acid Dimethyl Ester (Dimethyl Sebacate) | Ester 10 |
| N-Butyl Stearate | Ester 11 |
| Hexanedioic Acid Dipropyl Ester (Di-N-propyl adipate) | Ester 12 |
| Ethylene Carbonate | Ester 13 |
| Lead Acetyl Salicylate | Metal Organo 1 |
| Lead Salicylate | Metal Organo 2 |
| Lead Dihydroxy Benzoate (Lead Resorcyrate) | Metal Organo 3 |
| Basic Cupric Salicylate | Metal Organo 4 |
| Lithium Stearate | Metal Organo 5 |
| Lead Stearate | Metal Organo 6 |
| Magnesium Stearate | Metal Organo 7 |
| Zinc Stearate | Metal Organo 8 |
| Lead Meta Toluate | Metal Organo 9 |
| Lead Rincinoleate | Metal Organo 10 |
| Mono Basic Lead Dihydroxy Benzoate (Mono Basic Lead Beta Resorcyrate) | Metal Organo 11 |
| Ferric Acetyl Acetate | Metal Organo 12 |

| <u>NAME(S)</u> | <u>CODE</u> |
|--|---------------|
| Stearic Acid | Misc 1 |
| Carbazole | Misc 2 |
| Diphenyl Guanidine | Misc 3 |
| Oxamide | Misc 4 |
| Nitroguanidine | Misc 5 |
| Methyl Nitroguanidine | Misc 6 |
| Decaborane | Misc 7 |
| Melamine | Misc 8 |
| 5-Aminotetrazole | Misc 9 |
| Cyano Guanidine (Dicyandiamide) | Misc 10 |
| Diphenyl formamide | Misc 11 |
| Phthalide | Misc 12 |
| Cyclotrimethylene Trinitroso Amine, "R" Salt | Misc 13 |
| Phenazine | Misc 14 |
| Camphor | Misc 15 |
| Hexamethylene Tetramine | Misc 16 |
| Beta-Resorcylic Acid | Misc 17 |
| 1,3 Dihydroxy Benzene (Resorcinol) | Misc 18 |
| Tolyl-2,4-Diisocyanate | Misc 19 |
| Nitroisobutyl Glycerine, "Nib" Triacrylate | Misc 20 |
| Methyl Cellulose | Poly 1 |
| Ethyl Cellulose | Poly 2 |
| Cyanoethyl Cellulose | Poly 3 |
| Ethylenedinitramine ("Edna") (Haleite) | Nitro Amine 1 |
| Methylenedinitramine, "Medina" | Nitro Amine 2 |
| 1,3,5 Triazine Hexahydro 1,3,5-Trinitro (RDX) | Nitro Amino 3 |
| Cyclotetramethylenetetranitramine (Beta HMX) | Nitro Amino 4 |
| Cyclotetramethylenetetranitramine (Alpha HMX) | Nitro Amino 5 |
| Cyclotetramethylenetetranitramine (Gamma HMX) | Nitro Amino 6 |
| N-Methyl-N, 2,4,6-Tetranitroaniline (Tetryl) | Nitro Amino 7 |
| Monomethyl Haleite | Nitro Amino 8 |
| Dimethyl Haleite | Nitro Amino 9 |
| M-Nitroanisole | Nitro Arom 1 |
| P-Nitroanisole | Nitro Arom 2 |
| 2,4-Dinitroanisole | Nitro Arom 3 |
| 2,4,6-Trinitroanisole | Nitro Arom 4 |
| Nitrobenzene | Nitro Arom 5 |
| M-Dinitrobenzene | Nitro Arom 6 |
| P-Dinitrobenzene | Nitro Arom 7 |
| 1,3,5-Trinitrobenzene | Nitro Arom 8 |
| 2-Nitroethylbenzene | Nitro Arom 9 |
| 4-Nitroethylbenzene | Nitro Arom 10 |
| 2,4-Dinitroethylbenzene | Nitro Arom 11 |
| 2,4,6-Trinitroethylbenzene | Nitro Arom 12 |

| <u>NAME(S)</u> | <u>CODE</u> |
|--|-------------------|
| Alpha Nitronapthalene | Nitro Arom 13 |
| 1,5-Dinitronapthalene | Nitro Arom 14 |
| 1,8 Dinitronapthalene | Nitro Arom 15 |
| 1,3,8-Trinitronapthalene | Nitro Arom 16 |
| 2-Nitrotoluene | Nitro Arom 17 |
| 3-Nitrotoluene | Nitro Arom 18 |
| 4-Nitrotoluene | Nitro Arom 19 |
| 2,3-Dinitrotoluene | Nitro Arom 20 |
| 2,4-Dinitrotoluene | Nitro Arom 21 |
| 2,5-Dinitrotoluene | Nitro Arom 22 |
| 2,6-Dinitrotoluene | Nitro Arom 23 |
| 3,4-Dinitrotoluene | Nitro Arom 24 |
| 3,5-Dinitrotoluene | Nitro Arom 25 |
| 2,3,4-Trinitrotoluene | Nitro Arom 26 |
| 2,3,5-Trinitrotoluene | Nitro Arom 27 |
| 2,3,6 Trinitrotoluene | Nitro Arom 28 |
| 2,4,5 Trinitrotoluene | Nitro Arom 29 |
| 2,4,6-Trinitrotoluene | Nitro Arom 30 |
| 3,4,5-Trinitrotoluene | Nitro Arom 31 |
| 2-Nitrobenzoic Acid | Nitro Arom 32 |
| 3-Nitrobenzoic Acid | Nitro Arom 33 |
| 4-Nitrobenzoic Acid | Nitro Arom 34 |
| 2,4 Dinitrobenzoic Acid | Nitro Arom 35 |
| 3,5 Dinitrobenzoic Acid | Nitro Arom 36 |
| 2,4,6-Trinitrobenzoic Acid | Nitro Arom 37 |
| Diaminotrinitrobenzene | Nitro Arom 38 |
| 1,Nitro Carbazole | Nitro Arom 39 |
| 3,Nitro Carbazole | Nitro Arom 40 |
| 1,3,6,8 Tetranitrocarbazole | Nitro Arom 41 |
| 2,4,5,7 Tetranitrocarbazole | Nitro Arom 42 |
| Para-Nitro-N-Methyl Aniline | Nitro Arom 43 |
| 1,2,4-Butanetriol trinitrate | Organo Nitrate 1 |
| Nitrocellulose | Organo Nitrate 2 |
| Ethyleneglycoldinitrate | Organo Nitrate 3 |
| Diethyleneglycoldinitrate (DEGN) | Organo Nitrate 4 |
| Triethyleneglycol dinitrate (TEGN) | Organo Nitrate 5 |
| Mannitol Hexanitate | Organo Nitrate 6 |
| Metrioltrinitrate | Organo Nitrate 7 |
| Glycerol Trinitrate (Nitroglycerine) | Organo Nitrate 8 |
| Pentaerythritol Tetranitrate (PETN) | Organo Nitrate 9 |
| Pentaerythritol dinitrate (PEDN) | Organo Nitrate 10 |
| Pentaerythritol trinitrate (Pettrin) | Organo Nitrate 11 |
| Pentaerythritol trinitrate (petrin) Acrylate | Organo Nitrate 12 |
| Tetramethylolcyclopentanone Tetranitrate (Fivonite) | Organo Nitrate 13 |
| Tetramethylolcyclohexanol nitanitrate (Sixolite) | Organo Nitrate 14 |
| Dipentaerythritolhexanitrate | Organo Nitrate 15 |

| <u>NAME(S)</u> | <u>CODE</u> |
|---|-------------------|
| Tripentaerythritol octanitate | Organo Nitrate 16 |
| Propyleneglycoldinitrate | Organo Nitrate 17 |
| Nitroisobutylglycerine "NIB" dinitrate | Organo Nitrate 18 |
| Nitroisobutylglycerine "NIB" Trinitrate | Organo Nitrate 19 |
| Nitroisobutylglycerine "NIB" dinitrate acrylate | Organo Nitrate 20 |
| Nitroisobutylglycerine "NIB" dinitrate polyacrylate | Organo Nitrate 21 |
| Trioctylphosphate | Phos 1 |
| Triphenylphosphate | Phos 2 |
| Tri-o-tolylphosphate | Phos 3 |
| Tri-cresylphosphate | Phos 4 |
| Tri-p-cresylphosphate | Phos 5 |
| Dimethylphthalate | Phth 1 |
| Diethylphthalate | Phth 2 |
| Dibutylphthalate | Phth 3 |
| Diisobutylphthalate | Phth 4 |
| Di-N-Amylphthalate | Phth 5 |
| Diisoamylphthalate | Phth 6 |
| Dicaprylphthalate | Phth 7 |
| Dicyclohexylphthalate | Phth 8 |
| Diphenylphthalate | Phth 9 |
| Dibenzylphthalate | Phth 10 |
| Diisooctylphthalate | Phth 11 |
| Di-N-octylphthalate | Phth 12 |
| Di-2-Ethylhexylphthalate | Phth 13 |
| Potassium perchlorate | Salt 1 |
| Ammonium perchlorate | Salt 2 |
| Ammonium Nitrate | Salt 3 |
| Diammonium haleite | Salt 4 |
| Ammonium picrate | Salt 5 |
| Guanidine perchlorate | Salt 6 |
| Guanidine nitrate | Salt 7 |
| Triaminoguanidine nitrate | Salt 8 |
| Triaminoguanidine picrate | Salt 9 |
| Triaminoguanidine perchlorate | Salt 10 |
| Triaminoguanidine haleite "ethylene dinitramine" | Salt 11 |
| Ethylenediamine dinitrate | Salt 12 |
| Urea nitrate | Salt 13 |
| Hydrazine nitrate | Salt 14 |
| Hexamethylenetetramine dinitrate | Salt 15 |
| S-Diethyldiphenylurea (Ethyl centralite) | Urea 1 |
| S-Dimethyldiphenylurea (Methyl centralite) | Urea 2 |
| AS-Dimethyldiphenylurea | Urea 3 |
| (S)N,N' Di-p-Tolylurea | Urea 4 |
| Monophenylurea | Urea 5 |
| N,N-Diphenylurea | Urea 6 |
| N,N' Diphenylurea | Urea 7 |
| Carbanic Acid Ethylphenyl ethyl ester (N, Ethyl-N-Phenyl Urethane) | Ureth. 1 |

| <u>NAME(S)</u> | <u>CODE</u> |
|--|-------------|
| Carbamic Acid diphenyl ethyl ester (diphenylurethane) | Ureth 2 |
| Carbanilic Acid Ethyl Ester (Phenylurethane) | Ureth 3 |
| Carbamic Acid-o-tolyl ethyl ester (o-tolylurethane) | Ureth 4 |

