This is FOI

Swedish Defence Research Agency

Government agency under Ministry of Defence

Funded by appropriations and contracts

Total staff: 1220

Scientists: 860

FOI Organisation

Research Divisions

FOI Board

Director General

Staff

Administration

NBC Defence

Aeronautics, FFA

Defence Analysis

Systems Technology Weapons and Protection

Command and Control
Warfare Technology

MSI, Man-System-Interaction

> Sensor Technology

FOI

Division Locations



UMEÅ; NBC-Defence

STOCKHOLM, **BROMMA**; Aeronautics, FFA Director General, Staff

STOCKHOLM, GÄRDET; Defence Analysis

STOCKHOLM, **URSVIK**; System Technology

STOCKHOLM, **GRINDSJÖN**; Weapons and Protection

Command and Control Warfare Technology Man System Interaction, MSI Sensor Technology

FOI

FOI Weapons and Protection, Organisation

WEAPONS AND PROTECTION

Dr. Bo Janzon Deputy Carin Lamnevik

Energetic Materials

Dr. Henric Östmark

Protection and Materials

Dr. Michael Jacob

Warheads and Propulsion

Dr. Anders Wätterstam

Armour and Survivability

Ralf T Holmlin

Swedish surveillance test of NC-propellants

- Prevent self-ignition during depot storage and transportation
- Prevent propellant batches from being rejected earlier than necessary
- Singelbase, Doublebase, DEGDN, Triplebase and FNH propellants

Analytical techniques used for surveillance tests

- HPLC
 - High Performance Liquid Chromatography
- HF
- -Heat Flow calorimetry
- TLC
- -Thin Layer Chromatography

HPLC (High Performance Liquid Chromatography)

- Qualitative and quantitative analysis of stabilizers
- Isokratic
- Columns ultraspheres ODS 4,5 cm and 15 cm
- External standard
- Peak hight

Heat Flow calorimetry

- Isothermal twin calorimeter: sample and reference
- Measuring the temperature difference
- 65°C
- Results heat flow (μW) versus time

TLC (Thin Layer Chromatography)

- Qualitative analysis
- Determines some of the derivatives of the stabilizers