

By Toshitora Yamashiro

BUTOKUKAI

Cornville, Arizona 86325



© 1985 BUTOKUKAI

All rights reserved. No part of this book may be reproduced in any form, except for purposes of review, without written permission of the publisher.



BUTOKUKAI Cornville, Arizona 86325



TABLE OF CONTENTS

FOREWORD 1



K	11	3)
		1	
			-



Section 1.

Section 1.

Skills for use with





Basic Smoke Grenade 3 Section 2, Advanced Smoke Grenade 10 PART TWO:

Individual Katon Jitsu





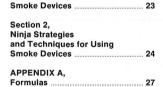








TABLE OF CONTENTS

WARNING

The author, editor, and publisher do not assume responsibility for the use of any of the information contained within this book. Those who choose to use this information incur all risk and liability, and are completely responsible for any damage, injury, or legal infractions.

The manufacture of explosive and pyrotechnic devices is very hazardous, and may even be illegal in some areas. Safety measures must be taken in order to avoid serious injury or death. Check federal, state, and local laws concerning the production of such devices.

FOREWORD

The Ninia of feudal Japan were among the first to see the value of using smoke to assist their operations. Through the development and production of simple but effective smoke devices (and their matchless training and skill), the Ninja have learned to take the utmost advantage of the use of smoke to achieve their objectives.

The manufacture of smoke devices is part of the Ninia skill of vogen or chemistry which originated in China and was imported to Japan during the 13th Century along with knowledge concerning betreff the manufacture of fireworks and gunpowder. The Ninja of this period, always eager for new technology, adopted the rudiments of this field. For hundreds of years since that time, the Ninja have dole a steadily improved upon their expertise, advancing

with the technology.

During the same course of time, the Ninia developed a special field of techniques and tactics to be used along with their smoke devices. This body of knowledge is called Ka Ton Jitsu, the art of using fire and smoke for purposes of offense, defense, infiltration, and escape.

This manual is primarily divided into two parts. The first part deals with yogen, particularly, those areas of Ninja chemistry dealing with the manufacture of smoke devices. The second part involves a description of Ka Ton Jitsu principles, strategies,

and techniques for using smoke devices.

In order to use this manual, begin by learning in Part One how to make the two types of smoke grenades presented. First, read through the directions completely in order to gain a general understanding of the procedure involved. Examine the instructional photographs and diagrams. Refer to the lists of the chemicals, the materials needed, and the safety procedures. Gather the necessary supplies and equipment. Maintain proper safety and follow the production steps implicitly, unbedingt

The complete procedures for manufacturing two types of Ninia smoke grenades are included in these pages. The first: Type 1, is a basic device. The second: Type 2, is more sophisticated, Learn how to manufacture both of these devices to begin with. Using the various options given at the end of each section, and the wide variety of formulas listed in Appendix A, practically any kind of a device can be made by adding to or modifying the two basic designs given. All devices should be tested prior, to actual use.

PART ONE

THE MANUFACTURE OF NINJA SMOKE DEVICES

powders

SECTION 1: DEVICE TYPE 1: BASIC SMOKE GRENADE

List 1.1: Basic Smoke Formula

Red Smoke

Paranitranilane red-3 lbs. Kalin Potassium chlorate-1 lb. Sugar-1 lb.

List 1.2: Materials Needed

Accurate measuring scale Wooden or plastic spoons (never metal) Disposable plastic cups (clear if possible)

Bowls or jars with lids (for measuring and storage) Large sections of 200 mesh screen, or large wire kitchen strainers Sieb Large sheets of paper (or newspaper)

A mixing device: 1) a large jar with a lid, or 2) a clear, tough plastic bag, or 3) a large tough paper Lock sack

Punches pails, and Exacto knives (for making funches pails, and Exacto knives (for making exhaust ports in metal or plastic)
One size 16 ounce metal or plastic canister (the grenade case) with a lid if possible One candlekano

Melted wax (for waterproofing) Plastic funnels Trickle Thin pliable wire Cardboard for caps and spacers

List 1.3: Safety Precautions and Procedures Brillen

Wear safety goggles for eye protection Wear a dust mask (optional) Work in a well-ventilated area Work in a spark-free environment (never strike metal on metal around smoke powders)

Do not smoke or have open flame near smoke Store all smoke chemicals and devices away from small children and heat sources

List 1.4: Production Steps for a Type 1 Device

1. Measure out the powdered chemicals separately on an accurate scale, according to the formula. 9,310 2. Sift each of the chemicals separately, and then

3. Mix the chemicals thoroughly in the mixing device.

4. Resift the mixed chemicals.

combine and sift them together.

5. Select and prepare the grenade canister(s).

6. Fill the grenade canister with smoke compounds.

7. Install the fuse.

R. Cap and seal the device.

Detailed Description of Each Production Step

Step 1: Measure out the powdered chemicals separately using an accurate scale, according to the formula (see photo 1).

It is extremely important that all smoke formula powders be measured out by units of weight such as ounces, pounds, or kilograms. Never measure powders out by units of volume such as cups, pints, liters, or gallons. When a formula calls for 1 part of Potassium chlorate, measure that one part out in either ounces (for a small test batch) or in pounds



(for a larger batch). This rule will hold true for all of the formulas in this manual. Next, when using the scale to weigh out the

parts of a formula, do not include the wgight of the measuring container. This may between the formula from functioning properly. Avoid this problem by placing the measuring container on the scale and adjusting the scale to zero. Once the scale is zeroed in, it will measure only the amount of powdered chemicals, and not the weight of the container in which they are placed. This is very important. Each time a different measuring container in which they are placed. This is very important. Each time a different measuring container is used, the scale must be zeroed in again.

Consulting the formula above, measure out the parts by weight, as instrugals. The measurements must be exact. Use a poon to add or subtract must be exact. Use a poon to add or subtract separate. They can be stored indefinitely in any dry container with a lid. Always label the container immediately to avoid forgetting what has been put into it. Never mix unknown substances.

Step 2: Sift each of the chemicals separately, and then combine and sift them together.

First, using the sections of 200 mesh screen (or optionally, the kitchen strainers), press each of the chemicals through separately, sifting them onto sheets of paper (see photo 2). Then lift up the paper by the corners and carefully pour the sifted powder back into the container (see photo 3).

After the chemicals are sifted separately, they must be combined and sifted together. Pour them PHOTO 2

all together onto or into the sifting device, and push them through onto another piece of paper (see photo 4). The sifted compound that results is then ready for mixing. Above all else, keep the mixing device and the powders dry to avoid clogging during sifting.

Step 3: Mix the chemicals thoroughly.

Four the combined and sifted mode compound into the mixing device. For obvious Tesianns, a clear mixing device is better. A simple look will show whether the smoke compound is throughly mixed or not. To mix, simply close the opening and shake the powders together, until they are blended: completely (see photo 5), To work properly, the mixture must be wintform throughout, 5be-suf-mixture must be wintform throughout, 5be-suf-

Step 4: Resift the mixed chemicals.

Resift the compound exactly as described before in Step 2. Push the powder through the sifting device and onto a large sheet of paper. Carefully lift the paper up by the corners again, and pour the compound into a storage container and label it. The smoke powder is now ready for testing. If prepared properly, it should ignite easily at the











touch of a match.

Test only a small quantity of the compound (no more than a spoonful or two). Do the testing outside in a safe areg where no fire will start. Burn the compound in a shallow tin can if possible (see photo 6). Once tested successfully, the smoke compound will then be ready for use in a smoke device.

Step 5: Select and prepare the grenade canister.

Select a canister for the grenade. For a Type 1 device, metal or plastic will usually do. Metal cans of the 16 ounce size and variety (including beverage cans) will work well (see photo 7). The container should be clean and dry.

Next, exhaust ports must be punched into the side of the canister to allow the smoke to escape. See figure 1 for exhaust port configurations. The





FIGURE 1

exhaust ports can be made in metal cases with any punch, nail, or even a can opener (see photo 8). For plastic canisters, a nail heated over a candle will melt holes through, or an Exacto knife can be used to cut out the ports.

Install six exhaust ports in one of the illustrated

configurations. Once these have been made, they must be lined on the inside with plastic wrap or a plastic bag (see photo 9), and coated on the outside with tape and/or melted wax (see photo 10). This will keep the powder dry and prevent it from spilling out of the exhaust posts.

spilling out of the exhaust ports. Yet, when the device is ignited, the plugs will burn through and release the smoke

Step 6: Fill the canister with smoke compound.

Using a funnel, if necessary, fill the canister loosely with the smoke compound (see photo 11).





Never ram or pack smoke powders. Remember to be careful to work in a spark-free environment. Fill the case up to an inch or a half inch away from the top. There must be room to cap and seal the device (see photo 12).

Step 7: Install the fuse.

Cut the right length of fuse for the desired delay. Most fuse is sold in coils (see photo 13); test each coil to find its burn time and label it. Burn time can







PHOTO 13

PHO 10 10

PHOTO 11



be found by the following equation:

Burn time in seconds/length of test fuse

Therefore, if a 5-inch section of fuse takes 15 seconds to burn from end jo. end, the burn time of the fuse is 3 seconds per inch. For a fuse delay 16 seconds on a smoke grenade, two inches of fuse myst, protrude from the smoke compound. To insure proper junition, cut the fuse so that one end touches the bottom of the canister, and the desired delay length protrudes from the top.

To secure the fuse beneath the cap, twist a tight coil of thin pliable wire around the fuse (see figure 2). Then form a spring-like coil (see figure 3). This will help prevent the fuse from falling or being pulled out of the ganister. Insert both the fuse and the wire retainer into the center of the smoke compound of the grenade (see figure 4).





To cap the smoke grenade, use either the lid or cut a spacer disk out of cardboard that will fit the mouth of the device (see photo 14). Punch a hole in the center of the lid for the fuse. Slip the lid over the the cut of the lid over the lid show the lid show the photo 15).

Seat the top of the device with melted wax up to the point of the point device with melted wax up to the point of the sport area with melted wax (see photo 16). A cut away diagram of a typical Type I device is shown in figure 8. Once the wax has hardened, the device is ready for testing. Test the device outside; a seculated rare a best.

If these simple instructions are followed to the letter, it will be easy to produce safe and effective smoke grenades. Any of the formulas in Appendix A will work in a Type 1 device, but some of them may need the assistance of an igniter to start them burning.

Igniter Option

Two very effective igniter formulas are also given in Appendix A, along with the smoke

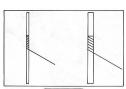


FIGURE 2

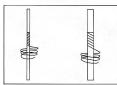


FIGURE 3

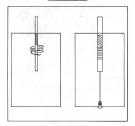


FIGURE 4





bereichnet

formulas. Each formula will designate whether or not an igniter is required along with it. Although many formulas do not need the assistance of an igniter, the Ninja chemist usually includes the igniter just to make the smoke grenade that much more reliable.



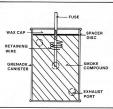


FIGURE 5

Using an igniter is simple. During Step 6, when filling the canister, leave an extra half inch at the top and fill with igniter compound (see photo 17). Then follow Steps 7 and 8 as before. The fuse will light the igniter, which will in turn burn down and set off the smoke compound very effectively.

SECTION TWO: DEVICE TYPE 2; ADVANCED SMOKE GRENADE

Exploding Smoke Cloud

To manufacture more complex and sophisticated developes, only a few additions and modifications to the basic procedure are required. Notice how many of the steps below for the production of a Type 2 changed from those for a Type 1 device. Refer 1662 to the Type 1 section for a detailed description of the repeated steps.

List 2.1: Basic Formula

Col. 0.0 Black Smoke

Volum Potassium chlorate—3 lbs. 7.1 4 3 g Rosin—1 lb. 343 g Rosin—1 lb. 343 g

List 2.2: Additional Materials

30 cm

A yard of thin cloth String Kitchen matches Leichholms

Gunpowder or explosive powder

(In addition to these items, assemble the same materials required as for Section 1)

List 2.3; Safety precautions and procedures.

Same as in Section 1.

List 2.4: Production Steps for a Type 2 Device.

- Measure out the powder chemicals separately, according to the formula.*
- 2. Sift the chemicals separately, and then combine and sift them together $\!\!\!\!\!\!^*$
- Mix the chemicals thoroughly in a mixing device.*
- 4. Resift the mixed chemicals.*
- 5. Select and prepare the grenade canister.
- Prepare a friction type fuse mechanism.

Varbreitung
7. Prepare a diffusion charge and insert the fuse

device.

8. Fill the case and insert the diffusion charge.

- and the same and t
- Cap and seal the device.*
 - * Indicates that the step is the same as described in Section 1.

The following are detailed descriptions of the modified and additional steps for producing a Type 2 device.

Step 5: Selecting and preparing grenade canisters (modified from Section 1).

Follow the same instructions as for a Type I device, but use a smaller canister—such as a 4.75 counce can (see photo 18), and add more exhaust ports (use at least a total of twide). See figure 6 for possible exhaust port configurations for an exploding smoke cloud. Type 2 devices need more exhaust ports in order to allow the smoke to expand more rapidly.



Step 6: Prepare a friction fuse mechanism.

A more sophisticated and reliable fuse device can be made by surrounding the fuse with kitchen matches (see figure 7). The match sticks can be cut to length just as the fuse, to fit the desired delay

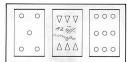


FIGURE 6

length. Add a wire retainer just as for a Type I fue see photo §§Q.00ge installed, no lighting to the see photo §§Q.00ge installed, no lighting to the required. Scrape the match heads against a rough surface, such as pigeo geographener. The burning match heads will finaire proper fuse ignition. This is the simplest type of friction fuse device. Even more sophisticated versions will be presented in the options listed at the end of Section 2.

Step 7: Prepare a diffusion charge and insert the fuse device.

An exploding smoke cloud requires a small diffusion charge to force the smoke powder surrounding it out of the exhaust ports and into an instant cloud. To emphasize, it must be a small

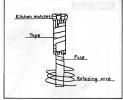
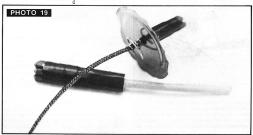


FIGURE 7

charge. Ninja often use these devices in close proximity to themselves. The idea is to create an instant smoke burst, not a hand grenade-like explosion. The diffusion charge should be just large enough to blow out the smoke powder, not send shrapnel flying. A few ounces of explosive powder is often enough.

To make the diffusion charge, pour a few ounces of explosive powder onto the middle of a three-inch \$\mathbb{Z}_1 5 \sigma_0\$, square of thin cloth (see photo 20). Qather the cloth









up into a tight little sack and insert the friction fuse mechanism (the type described above in Step 6) into the center of the charge. Tie the top of the charge off tightly with a piece of string. The explosive diffusion charge is now ready (see photo 21).



PHOTO 21.1

Step 8: Fill the case and insert the diffusion charge.

This step is modified from Section 1 to the extent that during the filling of the case, the diffusion charge is inserted into the center of the smoke powder. The top of the fuse device, however, must profeture above the cap—even in short delay devices. See figure 8 for a cut away diagram of a Type 2 smoke device.

Options

Another way to make a Type 2 smoke device is to substitute a larger cloth bag for the canister. This will further lessen the chance of flying shrapnel, even more. The bag can be made from a nine inch

22 cm



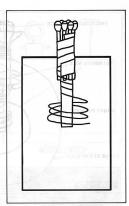


PHOTO 21.2

square of cloth. Line it with plastic wrap or a plastic bag. This will take the place of Step 5. Divisionally since the thin cloth bag! Divisit open steps has a basically remain the same. The bag is filled, the diffusion charge is inserted into the center, and intend of capping, the bag is tilled off around the fuse at the top. See figure 9 for a cut away view of this Tyre 2 variation.

of the Type 2 variation,

"Two other Against fiction fuse mechanisms

serve mentionas possible options. These are
more applistigated fuse mechanisms, and they
also dispense with the need to have a match or
other lighting device on hand. These mechanisms
used by the Ninja are generally of two basic types.
The EPI Op Device.

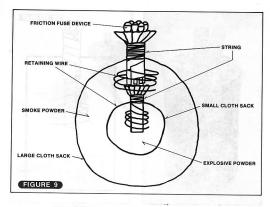
FIGURE 8

Type 1: The Pull Type Friction Device.

The pull type mechanism can be readily pruchased and is inserted over the fuse. A simple pull of the ring or wire ignites the fuse and starts it burning (see figures 10, 11 and Appendix B).

Type 2: The Striker Type Friction Device.

This friction type mechanism is excellent for use in short delay devices (such as Type 2 device, see Section 2). This type of fuseigniting is very similar in principle to that which is found on simple emergency flares. There are two ways to make such devices, which consist primarily of two parts: the striker and the ignitier.



Both methods use the same chemicals found in emergency flares. The easiest way to obtain the striker compound (there dusterial) as to remove the substances from its material) in to remove the substances from its material is not remove the substances from its material is not remove the substances from its material is not removed. The substances from its material is not removed from the material is not removed from the material is not removed. The substances is not removed from the flare from der powdered, and removed from the flare from der powdered, and

then dissolved in a small amount of carbon

tetrachloride, a common degreasing solvent found

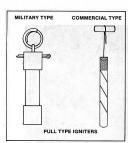
in most auto shops. Danger

Lose

Dissolve the black substance in the Carbon Tetrachloride either outside or in a well-ventilated area only. The resulting tumes are toxic. Avoid breathing them as much as possible. Use only enough solvent to dissolve the mixture and then let the liquid evaporate in a well-ventilated area.

The less liquid, the faster the evaporation. What will remain after evaporation will be a grey powdery substance. Mix this grey powder with a bit of water to make a thick, sticky compound. Dip fuses into the substance and allow them to dry. They will then ignite when struck with the striker. This substance will also make the lighting of fuses by other methods much easier. Ninia carry striking blocks or pads strapped to their fingers, wrists, or to the backs of their hands. Lisungamette A string or cord can be tied to or through a striker so that it can be worn on the wrist, belt, or around the neck (see photo 22). To light a device, first cover a fuse with the black igniter substance, and then scrape the igniter with the striker just as one would light a kitchen match or an emergency flare. Rubbing the striker against the igniter

produces the necessary friction to light the igniter.



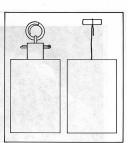


FIGURE 10

FIGURE 11





which in turn lights the fuse (see photos 23, 24). Another way of gaining access to the striker and igniter compounds is simply by manufacturing them directly.

Red Striker Compound Formula

Chemical-parts by weight

Dextrine-2 lbs. 746 % Webayen Mucilage (drug store variety)-3 lbs. Red Phosphorous-5 lbs. 4.8650 Sand (fine grade)-3 lbs. 1.119 a

Mix the ingredients and then add a sufficient amount of water to make a slightly thin paste. Smear this on the striking device and allow it to dry. Make sure that the sand is mixed well before applications. Objects that make good strikes are large buttons, belt buckles, arm bands, and clips on pins or novelty buttons (see figure 12).

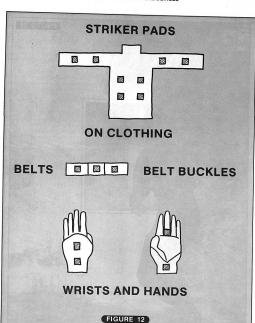
Chemical-Parts by weight

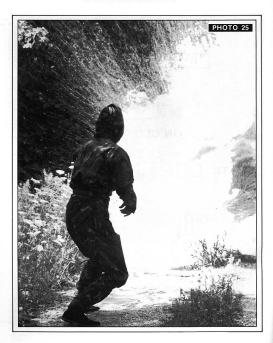
Black Antimony Sulfide (wet)-3 lbs. Dextrine-2 lbs. (or Mucilage-3 lbs.) Potassium Chlorate (wet)-5 lbs.

Danger

If mixed when dry, the black antimony sulfide and the potassium chlorate will explode. Wet both of them down before mixing. Add the thickening agent (dextrine, mucilage, or glue) and dilute with enough water to form a thick, sticky paste. Dip the fuses into this mixture and allow them to dry (see photo 25). When scraped quickly against a striker or lit with a match, the dried compound will ignite b the fuse.

Any smoke device, however large or small, no matter which formula is used, is based upon the two types discussed in the production sections, Sections 1 and 2. Once an individual possesses the knowledge of how to make such devices, however, they must learn how to use them to perform escapes and retreats, or infiltrations and attacks.





PART TWO

SECTION 1: INDIVIDUAL KA TON JITSU SKILLS FOR USE WITH SMOKE DEVICES

If a Ninja is on a mission, he or she will normally carry at least two Type 1 smoke devices. In battlefield situations, each Ninja may carry twice that many. A Ninja will also carry two small Type 2 devices at all times, and as many as six if on a mission or in the field.

Smoke devices are normally ignited and placed strategically so that the smoke will settle not travel through a certain area. If outside, always check which way the wind is blowing. As the device becomes hot when ignited, do not hold onto it or place it angong combustible materials. This is not always a COTCCT. If a fire starts, it may be so much the better for one's purposes.

The fuse can be lik with any lighting device. Dispossible bytain it ignores well and matches or almoded lantern work, also. Friction type fuse mechanisms, require a striker. Do not drop the device in water. Place it in the driest area possible and feer form whater a cooling fraying links in the driest area possible and feer form whater a cooling fraying links in the cooling that the driest area possible and feer form whater a cooling fraying links in the structure of the situation at hand.

The following is adjets of personal options available to a Ninio, Schäffigent youn jointing a smoke device. These actions are primarily evalue, with the understanding that the Ninio can shift from defense to offense at any step of the way, turning and attacking the enemy when they are the most vulnerable. Specific hypothetical situations in the following section will illustrate how these skills can be combined and executed in actual combat.

- 1. Ignite smoke device.
- 2. Take evasive action.
 - A. Attack and escape.
- B. Under the cover of smoke, flee the area as quickly as possible, making good use of other cover and concealment as well.
- C. Hide and let pursuers go past; then escape

D. Hide and make the enemy think that the intruder has gone by opening a door or window. Escape when enemy gets tired of looking and gives up.

Hiding and Concealment Tactics

Above all else, when using hiding tactics, remain completely still and silent. Do not look at fose Edward directly or they may sense a presence, having the feeling that someone is watching them. Always be ready to fight or to quickly silence enemies if discovered.

- 1. Hide above pursuers:
 - A. In trees.
 - B. Among rocks.
 - C. On ropes or ladders.
 - D. In or on buildings.
- 2. Hide below pursuers:
 - A. Fall flat on the ground at night.
- B. Crouch behind or among objects, beneath the average level of sight.
- C. Slip down into a concealed pit or secret tunnel.
- D. Hide among reeds, under a river bank, or under water.
 - E. Hide under objects (cars, furniture, etc.)

Evasive Actions

- Open, close, lock, jam, or spike shut doors and windows.
- Knock down or throw objects behind, into the path of pursuers.

Drop booby traps (tetsubishi, grenades, etc.) behind for pursuers to run into.

Deceptions

- Open or break through a door or window, making pursuers think that someone has gone either out or in.
- Throw a heavy object into a body of water to make a loud enough splash for enemies to think that someone has dived, jumped, or fallen in it.
- Hide momentarily, and have a nearby partner draw off the pursuit.
- 4. Drop a dummy grenade to scatter or delay pursuers. If pursuit continues, drop a live grenade. Enemies will often think it to be a dud as well, and will rush right into it.
- 5. Drape a cloak, blanket, or rain poncho over a bush, stump, chair or other such object to simulate the form of a person.

6. After hiding, use a disguise to escape.

Distractions and Delaying Tactics

1. Simulate or start fires.

muhe

- Have partners cause a disturbance in another area.
- 3. Leave a small recording device in a specific room or area, with a specially recorded distracting sound (such as voices, shouting, gunfire, etc.). Leave a certain amount of blank time on the tape, turn the volume up, and set it on play. The blank delay portion will play through until it reaches the desired sound effect distraction.
- 4. Lead guards, sentries, or pursuers deliberately into prearranged booby traps, mines, or ambushes.

SECTION 2: NINJA STRATEGIES AND TECHNIQUES FOR USING SMOKE DEVICES

The Ninja primarily use smoke devices for two main purposes: 1) Attack (Insertion and/or Infiltration), and 2) Retreat (Evasion and/or

Escape). Each of these strategies and the techniques involved call for certain levels of deception, & distraction, and obscuring movement.

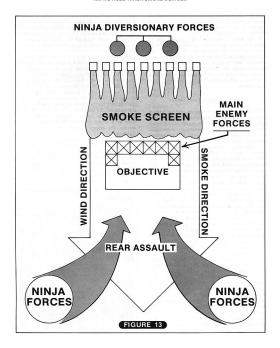
Attacking: Insertion and Infiltration

On the individual or small gound level, smoke devices can be used as a distraction to gain entry into guarded areas or buildings in order to perform a mission. The fear of fire will cause a distraction and enough confusion to allow the Ninja to enter the area or building unseen and undetected. The Ninja may slip in under the direct cover of the smoke itself, or they may enter somewhere else while all attention is focusely on the smoke from a while all attention is focusely on the smoke from a simulated house or automobile fire will allow the Ninja enough conceinment to be able to self-enough and the smoke of the smoke of the small of the smoke of

Timing of the insertion or infiltration is of the utmost importance. Onlookers should be looking somewhere else, gone to get help, or completely blinded by the smoke. Silence must be carefully maintained, however, because although the smoke obscures vision, it will not inhibit sound in any

way. On the larger squad level, smoke screens will conceal the movements of a frontal, rear, or flanking assault. The Ninja know from experience that a blinded opponent is nearly helpless. Enemies who cannot see, cannot fight effectively. For example (see figure 13) a Ninja assault force can set up a smoke screen so that it will pass through a target area from one end to the other, such as from front to rear. Judging from the direction of the incoming smoke screen, the enemy will most likely be expecting a frontal assault and will prepare for such. To aid the element of distraction and deception further, the Ninja could make an apparent show of an impending frontal assaultcomplete with the feigned (or recorded) sounds of troops, firing weapons, or even vehicles.

As the seemly Trices for the frontal attack, their forces will most likely become 'rigid, loosing their flexibility. Then,' instead of the expected frontal attack, the Ninja will attack from the rear—sitt concealed by the incoming smoke screen as it concealed by the incoming smoke screen as it confusion and fear. As the enemy turns all or part of its forces to deal with, the rear assault, another forntal assault can be feiging of a catually launched. Ninja forces are free to Teinf, attack, or retreat in any direction to confuse or frightless the enemy and



gain the advantage. As long as the enemy cannot see how many Ninja are attacking or from what direction, opponents will be hard pressed to adequately defend their position.

If the wind changes, smoke screens can be ignited in coher areas to compensate. The Ninja may even feint in various directions until they find a weakness in the enemy's defenses, and then attack in force to capitalize on it. Mbps gmoke is Properly used, the enemy musty'essirt to second guiesing in the midst of confusion, and the Ninja they will be seen that the contraction, possessing the unper hand.

Retreating: Evasion and Escape

The same principles, strategies, and techniques used for attacking can be applied to retreating as well. On the individual or small squad level, smoke devices provide the necessary distraction and/or concealment of activity and movement necessary for evasion or escape.

Imagine that a Ninja is being chased by enemies down a corridor or hallway. While running, the Ninia sets off a smoke cloud or other device. The pursuers may rush into the smoke cloud, or they may hesitate before entering it fearing that they may be walking into a surprise attack or booby trap (which, of course, the Ninja IS completely capable of doing). In any case, for an instant they have lost sight of the Ninia. That instant is all the time that a trained Ninia needs. The Ninia may very well drop some booby trap such as tetsu-bishi (caltrops), toss a hand grenade over his shoulder as he rounds a corner or ducks into another chamber, and then make good his escape. At times a Ninja will hide in an area, under the very noses of his enemies, and make them think that he has already fled or escaped. The Ninja can let his foes pass him by, being prepared to dispatch them if he is discovered again.

The enemy may rush through the smoke cloud in hot pursuit, wait until the cloud clears, or proceed cautiously into the smoke. It is up to the Ninja to use the situation to his advantage. The trained Ninja knows that most people assume that an open door or window represents a sure sign that someone has gone through it. He may open or break through a door or window to escape, or to divert his pursuers by making them think he has gone a certain way. In actuality, the Ninja may given up searching for him. Then he will benefit out, after the searchers have been wom out or have the contraction of the processing the new part of the searchers have been wom out or have

gone. The Ninja may escape covertly, or openly with the aid of a disguise. Using a disguise, the Ninja may escape in broad daylight, right under the noses of the enemy. The basic concept at work in both of these strategies is to use the enemy: natural expectations and assumptions against

them On the larger squad level, such as the tactical battlefield, smoke screens provide cover to break off an assault, regroup and counterattack, or ambush, delay, or destroy pursuing forces. Even superior forces will hesitate chasing after the Ninia once the enemy learns that deadly booby traps and rear-guard assault teams, silent ambushes and mine fields, are waiting to make such pursuit very costly. Runners could even divert the pursuers off the track of the main force, leading them, if possible, into a deathtrap (such as a mine field or a silent ambush). Under the cover of smoke, the enemy cannot see what they are in School Weller fighting.

The optimum getreat strategy is to contain the enemy forces by innining them down, or at the very least, slowing them down with foreigness; the term is a contained to the main group retreats, then folding the rear guard up—fading into the smoke and disappearing like phantoms. The best retreats occur when the enemy realizes only too late that the Ninja are



APPENDIX A FORMULAS

Remember that all powders should be sifted and mixed thoroughly in a spark-free environment. Powders should be taimped lightly, never packed or rammed. All parts listed are by measures of oweight, never by measures of owne. Any scale or system of weights can be used. Each of the formulas presented below is separate from the others, and should be used, individually. Never combine formulas or parts of formulas.

Black Smoke

Formula 1 *I

Hexachloroethane—3 60% Naphthalene—1 40% Magnesium Powder—1 100%

Formula 2

Alim Potasium Chlorate -3 50% Rosin -1 Wologhowim 155% Sugar -1 765%

Formula 3 *I

Charcoal—1 12.5%
(Lampblack)—1 2.5%
Realgar—1 2.5%
Rosin—1 Kolophonuun 2.5%
Saltoeter—4 5 %

Formula 4 *I

Hexachloroethane—20 55,5% Magnesium Powder—9 25% Naphthalene—7

Formula 5 *I
Alpha Naphthol—3 7.2 %
Aluminum Powder—2 4.8 %
Anthracene—1 2.4 %
Charcoal (fine grade)—5 4.2 %
Hexachloroethane—12 2.3 %
Saltpeter—16 2.7 %
Sulfur—2.5 6.7 %

White Smoke

Formula 1 *I

Charcoal (fine grade)—1 3,4% Saltpeter—12 42 % Sulfur—16 54.6 %

Formula 2 *I

Formula 3 *I

Potassium Chlorate)3 432% Salammoniac (fine grade)—3 43% Sugar—1 44.2%

Formula 4 *I

Hexachloroethane—1 33% Zinc Dust—2

Formula 5 *I

Hexachloroethane—25 Zinc Dust—14 28% Zinc Oxide—11 222

Formula 6 *I

Ammonium Chloride—1 30% Valio, Potassium Chlorate—3 60% Sugar—1

Red Smoke

Formula 1 *I

Paranitranilane Red—3 60% Kalium Potassium Chlorate—1 20% Sugar—1 20%

Use Igniter)

Formula 2

Diethylaminorosindone—24 4 8 % Potassium Chlorate—13 26 % Sugar—13 26%

Formula 3 *I

Antimony Sulfide—4 16%
Gum Arabic—1 4%
Potassium Perchlorate—5 20%
Rhodamine Red—10 40%

Formula 4 *I

Auramine—2 10% Chrysoidine—6 30% Potassium Chlorate—7 35% Sugar—5 25%

Formula 5

Methylaminianthraquinone—2142,5%
Potassium Chlorate—13.5 27.5%
Nodium Bicarbonate—10 20%
Sulfur—5 40%

Yellow Smoke

Formula 1

Med Powder—1 20 %
Red Arsenic—1 20 %
Saltpeter—1 20 %
Sulfur—1 20 %

Formula 2

Formula 3

Auramine—11 33,3% Chrysoidine—3 9 % Sugar—8 2.4,3%

Formula 4

Auramine 0—13 38,3% %

Maliur Potassium Chlorate—7 2 1 7% (* Use Igniter)

Natrum Sodium Bicarbonate—10 30% Sulfur—3 3 %

Formula 5 *I

Paranitranilane Yellow—2 50% Potassium Chlorate—1 25% Sugar—1 25%

Green Smoke

Formula 1 *I

Auramine—3 15,7%
Indigo (synthetic)—5 26,3%
Potassium Chlorate—6, 31,7,—%
Sugar—5, 26,3%

Formula 2

Auramine 0—6 12%
14-D-P-Toluidinoanthraquinone—14 2 8 %
National Potassium Chorate—13 26 %
National Sodium Bicarbonate—12 24%
Sulfur—5 10 %

Formula 3

Auramine—574, 7% Indigo—9 %, 8 % Valium Potassium Chlorate—11 32, 5 % Sugar—9 264 %

Formula 4 *I

Antimony Sulfide—5 2 2,7% Gum Arabic—1 4,5% Malachite Green—10 45,4% Potassium Perchlorate—6 27,4%

Blue Smoke

Formula 1 *I

Indigo (synthetic)—8 \(\foatsigma \) \(\frac{\pi}{2} \) Potassium Chlorate—7 \(\frac{25}{35} \) \(\frac{\pi}{2} \) Sugar—5 \(\frac{25}{35} \) \(\frac{\pi}{2} \) \(\frac{\pi}{2} \)

Formula 2

1, 4-Dimethylaminoanthraquinone—2 50% Potassium Chlorate—1 25% Sugar—1 25%

Formula 3 *I

Antimony Sulfide—4 20% Gum Arabic—1 5% Methylene Blue—10 5% Potassium Perchlorate—5 25%

Igniters

Formula 1

Dextrine—0.6 3,6% Red Arsenic—3 18 % Saltpeter—10 60,4 % Sulfur—318 %

Formula 2

Dextrine—1 4,3%, Red Arsenic—4 17,3%, Saltpeter—14 67%, Sulfur—4 17,4%

Formula 3

Chlorate Potassium—3 40 9 Charcoal (fine grade)—1 13.3 9 Nitrate Strontia—3 40 9 Red Gum—0.5

Formula 4

Antimony Sulfide—4 70.8% Meal Powder—4 10.8% Saltpeter—24 64.3 % Sulfur—5 13.5 %

(* Use Igniter)



APPENDIX B: SUPPLIERS

Suppliers and Sources for Chemicals:

Capitol Fireworks 1805 West Monroe Street Springfield, Illinois 62704

The Chemical Shed 944 E. Baseline San Bernardino, California 92410

City Chemical Corp 132 W. 22nd Street New York, New York 10011

D & R Enterprises P.O. Box 14741 Cleveland, Objo 44114

Hagenow Laboratories 1302 Washington Street Manitowic, Wisconsin 54220

Merril Scientific 1665 Buffalo Road Rochester, New York 14624

Richard O. Wolter 326 Summit Court Schaumberg, Illinois 60193

Westech Corporation P.O. Box 593 Logan, Utah 84321

Each of these suppliers require a \$2.00 fee for lists of their chemicals and other supplies.

Supplier of Fuse and Pull Type Igniters:

Phoenix Systems Inc. P.O. Box 3339 Evergreen, Colorado 80439

Send \$1.00 for a catalog.

At last, the secret of manufacturing Ninja smoke producing devices is revealed. In this book, Toshitora Yamashiro, Grandmaster of the Nine Shadows of the Koga Riyu (author of *Deadly Weapons of the Koga Riya*), explains in explicit detail the fine art of Yogen (Ninja chemistry). Learn the simple procedures for making smoke devices from readily available supplies, Sections on strategy and techniques tell how to evade the enemy, vanish into an exploding smoke cloud and create distractions. This manual is step-by-step, fully illustrated with many secrets never before printed and provides one more skill of the legendary Koga Ninja.