# Deciphering a Pesticide Label



# 42 CFR Part 84 Rule Changes Changed Respirator Certifications

- In July 1995National Institute of Occupational Safety and Health (NIOSH) upgraded the tests used to certify non-powered air purifying particulate respirators. TC: Test and Certify
  - Does not change chemical cartridge, SCBA, airline, gas mask, PAPR types
- Testing requirements for owing respirators or filters are eliminated:
  - Single use dust/mist respirators
  - Dust/mist respirators
  - Dust/mist/fume respirators
  - Radon daughter respirators
  - Pesticide prefilters
  - Paint spray prefilters



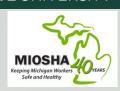
# 42 CFR Part 84 Rule Changes Changed Respirator Certifications

- Regulation creates a total of nine classes of particulate filters
- Part 84 particulate filters:
  - Resistance to oil Part 84 respirators will be designated as "N" (no oil), "R" (oil-resistant for 8 hours) or "P" (oil-proof may last longer than 8 hours).
  - Particle collection efficiency Part 84 respirators have a better particle collection efficiency, down to the 0.3 micron range.
    - Efficiency designations of 95, 99 or 99.97 (100 HE)



## Decisions, Decisions

Filter Class/Efficiencies	95%	99%	99.97% (100%)
N-Series (not resistant to oils)	N95	N99	N100
R-Series (resistant to oils for up to 8 hours)	R95	R99	R100
P-series (oil proof)	P95	P99	P100



### NIOSH TC Designations

- Air Supplied Respirators
  - 13F: self-contained breathing apparatus (SCBA)
  - 19C: supplied air respirator (SAR)
- Air Purifying Respirators
  - 14G: gas mask with canister
  - 23C: air-purifying respirator (APR) with chemical cartridge
    - Half- or full-facepiece
  - 84A: respirator with particulate filter or combination chemical cartridge with particulate filter
    - Filtering facepiece
    - Half- or full-facepiece
- Powered Air Purifying Respirators
  - 23C: powered air-purifying respirator (PAPR) with chemical cartridge and particulate filter
  - 21C: powered air-purifying respirator (PAPR) with particulate filter

#### - Most protective from top to bottom



NIOSH Approval #TC-13F Self-Contained Breathing Apparatus (SCBA) Air supplied from a pressurized tank to a full-face mask.



NIOSH Approval #TC-19C Supplied Air Respirator\* (SAR) Air supplied through an air hose from a source such as an air compressor.





NIOSH Approval #TC-14G Air Purifying full-face respirator with a canister specified for a type of chemical contaminant such as organic vapors (OV) (gas mask).



NIOSH Approval #TC-84A Air Purifying full-face respirator with combination OV cartridge and N-type particulate filter.



NIOSH Approval #TC-23C Powered Air Purifying Respirator (PAPR) with OV and combination HE filters.



NIOSH Approval #TC-21C Powered Air Purifying Respirator (PAPR) with particulate HE filter.



NIOSH Approval #TC-84A Air purifying half-face (elastomeric) respirator with combination OV cartridge and N-type particulate filters.



NIOSH Approval #TC-84A Air purifying half-face (elastomeric) respirator with P-100 (magenta) particulate filters.

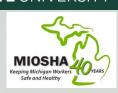


NIOSH Approval #TC-84A Filtering facepiece respirator (May be an N-, R-, or P-type particulate filter.) This is also known as a 'disposable' respirator because none of its parts are replaceable.

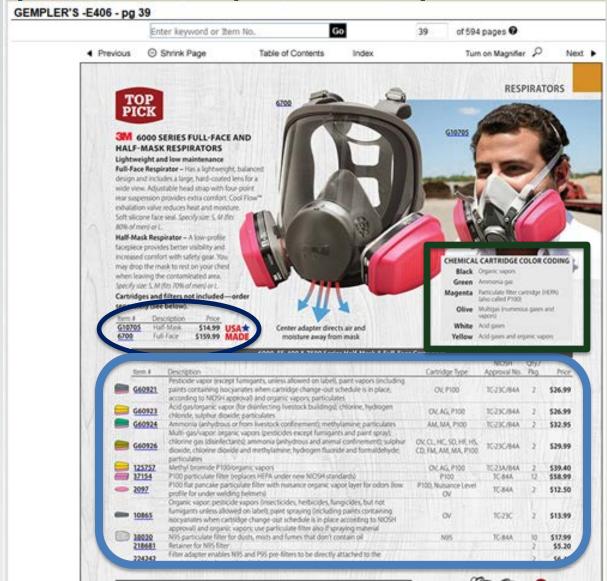
#### Translation Key for Respirator on EPA labels

OUTDATED Respirator terms used on EPA pesticide labels	Current NIOSH respirator terms used on labels
NIOSH/MSHA	NIOSH
Dust/Mist	Particulate
Pre-filter approved for pesticides	N, R, or P filter, to be used in combination with a chemical cartridge
Canister approved for pesticides	Canister (contaminant specific)
N, R, P or HE filters	N, R or P (HE filters can only be used on Powered Air-Purifying Respirators (PAPRs)





## Example of Respirator Options





# Let's Look at NIOSH Approval Numbers

100000	6000, FF-400 & 7500 Series Half-Mask & Full-Face	· Cartridges	NIOSH	Qty./	
Item #	Description	Cartridge Type	Approval No.	Pkg.	Pric
G60921	Pesticide vapor (except fumigants, unless allowed on label), paint vapors (including paints containing isocyanates when cartridge change-out schedule is in place, according to NIOSH approval) and organic vapors; particulates	OV, P100	TC-23C/84A	2	\$26.9
G60923	Acid gas/organic vapor (for disinfecting livestock buildings); chlorine, hydrogen chloride, sulphur dioxide; particulates	OV, AG, P100	TG23C/84A	2	\$26.9
G60924	Ammonia (anhydrous or from livestock confinement); methylamine; particulates	AM, MA, P100	TC-23C/84A	2	\$32.9
<u>G60926</u>	Multi-gas/vapor: organic vapors (pesticides except fumigants and paint spray); chlorine gas (disinfectants); ammonia (anhydrous and animal confinement); sulphur dioxide, chlorine dioxide and methylamine; hydrogen fluoride and formaldehyde; particulates	OV, CL, HC, SD, HF, HS, CD, FM, AM, MA, P100	TC-23C/84A	2	\$29.9
125757	Methyl bromide P100/organic vapors	OV, AG, P100	TC-23A/84A	2	\$39.4
37154	P100 particulate filter (replaces HEPA under new NIOSH standards)	P100	TC-84A	12	\$58.9
2097	P100 flat pancake particulate filter with nuisance organic vapor layer for odors (low profile for under welding helmets)	P100, Nuisance Level OV	TC-84A	2	\$12.5
10865	Organic vapor: pesticide vapors (insecticides, herbicides, fungicides, but not furnigants unless allowed on label); paint spraying (including paints containing isocyanates when cartridge change-out schedule is in place according to NIOSH approval) and organic vapors; use particulate filter also if spraying material	OV	TG23C	2	\$13.9
38030	N95 particulate filter for dusts, mists and fumes that don't contain oil	N95	TC-84A	10	\$17.5
218681	Retainer for N95 filter			2	\$5.2
224242	Filter adapter enables N95 and P95 pre-filters to be directly attached to the respirators. May be used multiple times.			2	\$6.4



### Label Example

- Mixer Loaders, applicators and all other handlers must wear ...
- And NIOSH approved dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C or a NIOSH approved respirator with any N, R, P or HE filter



### Remember Dust Mist = Particulate?

#### NIOSH Particulate Respirators



**TC-84A** 



TC-84A



TC-21C



**TC-84A** 



### Label Language

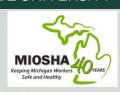
 For exposures in enclosed areas wear a respirator with an organic vapor removing cartridge with a pre-filter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C)



Look for the COMPONENTS: not the number!







#### NIOSH TC-84A vs TC-23C

TC-84A



Organic Vapor with combination N95 filter

**TC-23C** 



Organic Vapor Cartridge only



### Counter (Terbufos)

- A respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSH/NIOSH-approval number prefix TC-14G), or a NIOSH-approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P or HE prefilter
- A NIOSH approved respirator with an organic vapor (OV) removing cartridge with any combination N, R, or P filter (NIOSH approval number prefix TC-84A); or an OV canister (NIOSH approval prefix TC-14G; or a powered air purifying respirator (PAPR) with HE filters (NIOSH approval prefix TC-23)









#### Gramoxone Inteon

Personal Protective Equipment (PPE)

Applicators and other handlers (other than Mixers and Loaders) must wear:

- · Long-sleeve shirt and long pants
- Shoes plus socks
- · Protective eyewear
- Chemical Resistant Gloves Category A (e.g. barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC) or Viton®)
- . A dust mist NIOSH-approved respirator with any N, R, P, or HE filter
- A NIOSH approved particulate respirator with any N, R or P filter (NIOSH approval TC-84A); or a powered air purifying respirator (PAPR) with HE filters (NIOSH approval TC-21C)





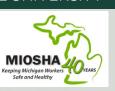






#### **WETTABLE POWDER**

See inside leaflet for complete First Aid Instructions, Precautionary Statements, Directions for Use and Storage and Disposal Instructions.



#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are listed below. If you want more options follow the instructions for Category A on an EPA chemical resistance category selection chart.

#### Applicators and other handlers must wear:

Long-sleeved shirt and long pants.

Shoes plus socks.

Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinylchloride.

#### Mixers and Loaders must also wear:

A non-powered air purifying respirator equipped with a N, R, or P series filter (NIOSH approved number prefix 84A) for mixing and loading.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Nonretiliable Container

https://www.backedbybayer.com/~/media/BackedByBayer/Product%20Labels%20-%20pdf/Hyvar%20X.ashx



# When Will a Label require the use of an atmosphere supplying respirator?

When insufficient oxygen is in the ambient air

There is no substitute for reading the pesticide product label when selecting a respirator. The SCBA respirators (TC-13F) and Supplied air type respirators (TV-19C) are not interchangeable

and Health (IDLH) at a very low concentration



## Product Formulation + Toxicity + Type of Application = Type of Respirator

	EPA Criteria	Label Statement for Respiratory Protection
	Solid pesticides with Toxicity Class II, III, or IV	Use NIOSHA-approved respirator with any N, R, P or 100 series prefilter
	Liquid pesticides, Toxicity Class I	Use NIOSH-approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P or 100 series prefilter
	Gas applied in enclosed area	Use any air-supplying respirator with NIOSH TC-19C or use a self-contained breathing apparatus with NIOSH TC-13F

#### Bottom Line...

The
 respirator
 you use
 must be right
 for the job
 that you do!

