

***OVERVIEW AND IMPLICATIONS FOR VOC REGULATIONS
California South Coast Air Quality Management District Rule 1144
UPDATE***

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**STLE 2012 Annual Meeting
St. Louis, Missouri**



SCAQMD Rule 1144

- Rule in effect since July 9, 2010
- Relaxed limits in place from July 9, 2010 to December 31, 2011
- Stricter limits started January 1, 2012
- First survey due on April 1, 2012
- Sell through period ends June 30, 2012
- Full effect of the rule starts on July 1, 2012



What is regulated?

Vanishing oils: (“any MWF with a flash point
<200 deg.F”)

Metalworking fluids:

Metal Forming Fluid

Metal Removal Fluid
General
Precision

Metal treating Fluid

Metal Protecting Fluid
General
Military Specified Products

Direct contact lubricants



Regulatory Limits

Category	VOC Limit (grams / liter)
Vanishing Oil	50
Metalworking Fluid	
Metal Forming	75
Metal Removal	
General	75
Precision	130
Metal Treating	75
Metal Protecting	
General	50
Military Specified	340
Direct Contact Lubricant	50



What is not regulated?

- **Cleaners, both water and solvent based (Rule 1171)**
- **Hydraulic oils**
- **Biocides (anti-microbial compounds)**
- **Additives for coolants (defoamers, emulsifiers, etc)**
- **Metal finishing chemicals (Acids, Bases, Oxidizers)**



Key Impacts of Rule 1144

January 1 to June 30, 2012; the “Sell Through” period:

- Customers may use VO, MWF and DCL exceeding the limits if purchased before 1/1/12
- Customers may purchase and use VO, MWF and DCL exceeding the limits and purchased after 1/1/12, so long as it was manufactured before 1/1/12
- Compounder/blenders and distributors may sell VO, MWF and DCL exceeding the limits if made before 1/1/12



Key Impacts of Rule 1144

PRODUCT LABELS

- Date of manufacture
- Starting January 1, 2012, VOC content, as determined by ASTM E-1868-10 (or calculation), is required on the label including products made before 1/1/2012
- Water dilutable fluids must list both the VOC of the concentrate as well as the minimum dilution required to achieve compliance.
- The concentrate may exceed the VOC limits; it is the in-use solution or emulsion that is regulated.



Product Label Example

Hot Quenching Oil

CAUTION!

CONTAINS MINERAL OIL. SEE MSDS FOR APPLICABLE EXPOSURE LIMITS. INHALATION OF MISTS MAY CAUSE IRRITATION OF THE UPPER RESPIRATORY TRACT. MAY CAUSE MILD EYE IRRITATION. MAY CAUSE MILD IRRITATION TO SKIN ON PROLONGED CONTACT. INGESTION MAY CAUSE NAUSEA OR DISCOMFORT. ASPIRATION MAY CAUSE LUNG DAMAGE. WEAR SAFETY GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS. USE GLOVES AND LONG SLEEVES TO MINIMIZE SKIN EXPOSURE. USE APRON OR OVERALLS IF SPLASHING IS POSSIBLE. USE A PARTICULATE FILTER RESPIRATOR IF APPLICABLE EXPOSURE LIMITS ARE EXCEEDED. EYEWASH AND SAFETY SHOWER RECOMMENDED.

FIRE CONTROL

USE CARBON DIOXIDE, DRY CHEMICAL OR FOAM. CLOSED CONTAINERS MAY SWELL AND RUPTURE WHEN EXPOSED TO EXTREME HEAT. USE WATER SPRAY TO COOL CONTAINERS EXPOSED TO FIRE AND HEAT. TREAT AS AN OIL FIRE. WEAR PROTECTIVE GEAR DURING FIREFIGHTING.

FIRST AID

IF INHALED, REMOVE TO A SOURCE OF FRESH AIR. FLUSH EYES WITH WATER FOR 15 MINUTES. CONSULT PHYSICIAN IF IRRITATION PERSISTS. WASH SKIN WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING AND LAUNDRY BEFORE REUSING. IF INGESTED, DO NOT INDUCE VOMITING! CONSULT PHYSICIAN.

SPILL / DISPOSAL

APPLY DRY ABSORBENT MATERIAL AND SWEEP UP THOROUGHLY. FOLLOW PERTINENT REGULATIONS FOR DISPOSAL. IT IS THE RESPONSIBILITY OF THE PRODUCT USER TO DETERMINE, AT THE TIME OF DISPOSAL, WHETHER A MATERIAL CONTAINING THE PRODUCT OR DERIVED FROM THE PRODUCT SHOULD BE CLASSIFIED AS A HAZARDOUS WASTE. (40 CFR 261.20-24)

HANDLING & STORAGE

AVOID CONTACT WITH STRONG OXIDIZERS. USE WITH ADEQUATE VENTILATION IF MISTING OCCURS OR IF OIL VAPORS ARE PRESENT. WASH THOROUGHLY AFTER HANDLING. KEEP CONTAINERS CLOSED WHEN NOT IN USE.

H HEALTH - 1

M FLAMMABILITY - 1

I PHYSICAL HAZARD - 0

S PERSONAL PROTECTION - X

HAZARD: MINIMAL - 0; SEVERE - 4

EMERGENCY TELEPHONE NUMBER

CHEMTREC IDs - HOUH & 10769

24 HR - 800-424-9300

CONTAINER INFORMATION:

-EMPTY CONTAINER RETAINS VAPOR & PRODUCT RESIDUE.

-DO NOT CUT OR WELD ON OR NEAR THIS CONTAINER.

-DO NOT REUSE UNLESS THOROUGHLY CLEANED.

-OBEY ALL LABEL WARNING DURING DRUM CLEANING.

REFER TO MSDS FOR ADDITIONAL INFORMATION.

NET WEIGHT **468 LBS**

LOT NUMBER **201110113456**

SCAQMD RULE 1144: THIS PRODUCT CAN BE USED WITH NO RESTRICTIONS UNDER CALIFORNIA'S SCAQMD RULE 1144.

SEE MSDS/PDS FOR FURTHER INFORMATION. VOC: 2 g/L

FOR INDUSTRY USE ONLY 35317500



Product Label Example

Rust Preventive Coating - Solvent Type

CAUTION!

CONTAINS MINERAL OIL AND PETROLEUM HYDROCARBON. SEE MSDS FOR APPLICABLE EXPOSURE LIMITS. AVOID BREATHING PRODUCT VAPORS. BREATHING VAPORS IN EXCESS OF THE TLV MAY CAUSE HEADACHE, DIZZINESS OR NAUSEA. MAY CAUSE MODERATE EYE IRRITATION. MAY CAUSE IRRITATION TO SKIN AND HAVE A DEFATTING EFFECT ON PROLONGED CONTACT. INGESTION MAY CAUSE NAUSEA OR DISCOMFORT. ASPIRATION MAY CAUSE LUNG DAMAGE. WEAR SAFETY GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS. USE APRON AND CHEMICAL RESISTANT GLOVES. BARRIER CREAMS MAY BE HELPFUL IF SKIN IS SENSITIVE. RESPIRATORY PROTECTION REQUIRED IF APPLICABLE EXPOSURE LIMITS ARE EXCEEDED. EYEWASH AND SAFETY SHOWER RECOMMENDED.

FIRE CONTROL

USE CARBON DIOXIDE, DRY CHEMICAL OR FOAM. CLOSED CONTAINERS MAY SWELL AND RUPTURE WHEN EXPOSED TO EXTREME HEAT. USE WATER SPRAY TO COOL CONTAINERS EXPOSED TO FIRE AND HEAT. PRODUCT FLOATS ON WATER CREATING A POTENTIAL FLOATING FIRE HAZARD. EMPTY CONTAINERS RETAIN PRODUCT RESIDUE WHICH MAY BE IGNITED. TREAT CONTAINERS ACCORDINGLY. WEAR PROTECTIVE GEAR DURING FIREFIGHTING. HIGH PRESSURE WATER STREAM WILL SCATTER MATERIAL AND MAY SPREAD FIRE.

H HEALTH - 1

M FLAMMABILITY - 2

I PHYSICAL HAZARD - 0

S PERSONAL PROTECTION - X

HAZARD: MINIMAL - 0; SEVERE - 4

EMERGENCY TELEPHONE NUMBER

CHEMTREC IDs - HOUH & 10709

24 HR - 800-424-9300

NET WEIGHT **475 LBS**

LOT NUMBER **201110110987**

FIRST AID

IF INHALED, REMOVE TO A SOURCE OF FRESH AIR. FLUSH EYES WITH WATER FOR 15 MINUTES. CONSULT PHYSICIAN IF IRRITATION PERSISTS. WASH SKIN WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING AND LAUNDRY BEFORE REUSING. CONSULT PHYSICIAN IF IRRITATION PERSISTS. IF INGESTED, DO NOT INDUCE VOMITING! CONSULT PHYSICIAN.

SPILL / DISPOSAL

ELIMINATE ALL SOURCES OF IGNITION. PROVIDE VENTILATION. APPLY DRY ABSORBENT MATERIAL AND SWEEP UP THOROUGHLY. PLACE IN A SUITABLE CONTAINER FOR DISPOSAL. FOLLOW PERTINENT REGULATIONS FOR DISPOSAL. IT IS THE RESPONSIBILITY OF THE PRODUCT USER TO DETERMINE, AT THE TIME OF DISPOSAL, WHETHER A MATERIAL CONTAINING THE PRODUCT OR DERIVED FROM THE PRODUCT SHOULD BE CLASSIFIED AS A HAZARDOUS WASTE. (40 CFR 261.20-24)

HANDLING & STORAGE

AVOID CONTACT WITH EYES, SKIN AND CLOTHING. USE PRODUCT WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. KEEP AWAY FROM SOURCES OF HEAT, OPEN FLAMES AND SPARKS. AVOID CONTACT WITH STRONG OXIDIZERS. KEEP CONTAINERS CLOSED WHEN NOT IN USE.

CONTAINER INFORMATION:

- EMPTY CONTAINER RETAINS VAPOR & PRODUCT RESIDUE.
- DO NOT CUT OR WELD ON OR NEAR THIS CONTAINER.
- DO NOT REUSE UNLESS THOROUGHLY CLEANED.
- OBEY ALL LABEL WARNING DURING DRUM CLEANING.

REFER TO MSDS FOR ADDITIONAL INFORMATION.

SCAQMD RULE 1144: THIS PRODUCT IS NOT TO BE USED IN CALIFORNIA'S SCAQMD REGION.

SEE MSDS/PPDS FOR FURTHER INFORMATION. VOC: 693 g/L

FOR INDUSTRY USE ONLY 21421500

1421500



Product Label Example

Metalworking Fluid - Water Soluble Fluid

CAUTION!

CONTAINS MINERAL OIL AND AMINE. SEE MSDS FOR APPLICABLE EXPOSURE LIMITS. INHALATION OF MISTS MAY CAUSE IRRITATION OF THE UPPER RESPIRATORY TRACT. MAY CAUSE EYE IRRITATION. PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE IRRITATION. INGESTION MAY CAUSE NAUSEA OR DISCOMFORT. ASPIRATION MAY CAUSE LUNG DAMAGE. WEAR SAFETY GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS. USE GLOVES AND LONG SLEEVES TO MINIMIZE SKIN EXPOSURE. USE APRON OR OVERALLS IF SPLASHING IS POSSIBLE. USE AN APPROVED RESPIRATOR (SEE 29 CFR 1910.134) IF APPLICABLE EXPOSURE LIMITS ARE EXCEEDED. EYEWASH AND SAFETY SHOWER RECOMMENDED.

FIRE CONTROL

PRODUCT CONTAINS WATER. IF WATER IS REMOVED, USE CARBON DIOXIDE, DRY CHEMICAL OR FOAM. CLOSED CONTAINERS MAY SWELL AND RUPTURE WHEN EXPOSED TO EXTREME HEAT. USE WATER SPRAY TO COOL CONTAINERS EXPOSED TO FIRE AND HEAT. WEAR PROTECTIVE GEAR DURING FIREFIGHTING.

FIRST AID

IF INHALED, REMOVE TO A SOURCE OF FRESH AIR. FLUSH EYES WITH WATER FOR 15 MINUTES. CONSULT PHYSICIAN. WASH SKIN WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING AND LAUNDRY BEFORE REUSING. CONSULT PHYSICIAN IF IRRITATION PERSISTS. IF INGESTED, DO NOT INDUCE VOMITING! CONSULT PHYSICIAN.

SPILL / DISPOSAL

APPLY DRY ABSORBENT MATERIAL AND SWEEP UP THOROUGHLY. FLUSH AREA WITH WATER AND MOP UP THOROUGHLY TO AVOID RESIDUAL SLIPPERINESS. FOLLOW PERTINENT REGULATIONS FOR DISPOSAL. IT IS THE RESPONSIBILITY OF THE PRODUCT USER TO DETERMINE, AT THE TIME OF DISPOSAL, WHETHER A MATERIAL CONTAINING THE PRODUCT OR DERIVED FROM THE PRODUCT SHOULD BE CLASSIFIED AS A HAZARDOUS WASTE. (40 CFR 261.20-24)

HANDLING & STORAGE

USE WITH ADEQUATE VENTILATION. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. WASH THOROUGHLY AFTER HANDLING. DO NOT ADD NITRITES TO THIS PRODUCT. KEEP AWAY FROM STRONG OXIDIZERS. KEEP CONTAINERS CLOSED WHEN NOT IN USE. STORE IN A COOL, DRY, WELL VENTILATED AREA.

H HEALTH - 1

M FLAMMABILITY - 0

I PHYSICAL HAZARD - 0

S PERSONAL PROTECTION - X

HAZARD: MINIMAL - 0; SEVERE - 4

EMERGENCY TELEPHONE NUMBER

CHEMTREC IDs - HOUH & 10760

24 HR - 800-424-9300

CONTAINER INFORMATION:

-EMPTY CONTAINER RETAINS VAPOR & PRODUCT RESIDUE.

-DO NOT CUT OR WELD ON OR NEAR THIS CONTAINER.

-DO NOT REUSE UNLESS THOROUGHLY CLEANED.

-OBEY ALL LABEL WARNING DURING DRUM CLEANING.

REFER TO MSDS FOR ADDITIONAL INFORMATION.

NET WEIGHT **488 LBS**

FORD TOX NUMBER 153021 LOT NUMBER **201110112987**

SCAQMD RULE 1144: THIS PRODUCT CAN BE USED AT A MAXIMUM CONCENTRATION OF 20%.

SEE MSDS/PDS FOR FURTHER INFORMATION.

VOC: 130 g/L

FOR INDUSTRY USE ONLY

42795000



Product Label Example

VOC of
Product in Drum

Maximum use
Concentration

SCAQMD RULE 1144: THIS PRODUCT CAN BE USED AT A MAXIMUM CONCENTRATION OF 20%.
SEE MSDS/PDS FOR FURTHER INFORMATION. VOC: 130 g/L FOR INDUSTRY USE ONLY

20111011

Date Code



MSDS Sheet - Example

9. Physical and Chemical Properties

Appearance	AMBER LIQUID	Water Solubility	EMULSIFIES
Odor	OIL AMINE ODOR	Boiling Point	> 212°F
Vapor Pressure (mmHg)	N/D	Freezing/ Melting Point	N/D
Vapor Density (Air = 1)	N/D	VOC	130 G/L
Specific Gravity (Water = 1)	0.95	VOC Method Used	ASTM E1868-10
pH (Neat)	10.3	Evaporation Rate (BuAc = 1)	< 1
pH (Dilution)			
A: Percent	5		
pH	9.7		

N/D - Not Determined; N/A - Not Applicable; > - Greater Than; < - Less Than

Key Impacts of Rule 1144

July 1, 2012 onward

- Use and sale of any MWF and DCL exceeding the limits, no matter what the date of sale or manufacture, is prohibited
- At any time, a compounder/blender or distributor may manufacture, warehouse or sell MWF and DCL exceeding the limits for use outside the AQMD district



Survey

<http://www.aqmd.gov/prdas/Forms/R1144AnnualQuantityandEmissionReport.xls>

Purpose: To capture VOC reduction from start of Rule 1144 a period of time after the Rule is in place

Required by:

- Anyone that sells into SCAQMD
 - Compound Blenders
 - Distributors
 - Toll Blenders
 - Importers
- Caution Do not Double report
- Survey required to be completed on April 1, 2012



Survey

You can use a form of your own design so long as it includes all of the data specified in Rule 1144

You can bundle multiple products into one item so long as they all have a VOC within 25 g/l of each other



Section I – Administrative Information

LEGAL NAME OF MANUFACTURER				REPORTING YEAR			
STREET ADDRESS				City		STATE	
RESPONSIBLE PARTY		POSITION WITH THE COMPANY			PHONE NUMBER		E-MAIL ADDRESS

Section II – Product Information

	A	B	C	D	E	F	G
Line Number	Name of product manufacturer AS LISTED ON THE LABEL	Brand Name	Product Name	Number of Products Grouped ¹	Base Stock Technology ² :	Rule 1144 Category ³	VOC Content in g/L (before dilution with water) ⁴
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							

¹ Number of Products Grouped: Products can be reported either individually or as a group. All grouped products are required to have the same value for columns E through G.

² Base Stock Technology: N = Naphthenic, P = Paraffinic, S = Synthetic (PAO, PAG, DE, etc.), VB = Vegetable-based, SWD=Petroleum oil-free synthetic water dilutable fluid, O = Other

³ Rule 1144 Category: VO = Vanishing Oil, MF = Metal Forming, MR = Metal Removal, PMR = Precision Metal Removal, MT = Metal Treating, MP = Metal Protecting, DC = Direct

⁴ VOC Content: Provide VOC content AS SOLD (same as listed on product label). For water-diluted materials, please list the lowest recommended dilution by % concentrate in water in

How did you determine AQMD Annual Sales Volume? (check all that apply)

- Direct AQMD retail sales
- Direct AQMD wholesale distribution
- Other (explain)

Fine Structure for Non-compliance

Four penalty levels:

- \$ 1,000 per day - Paperwork error
- \$ 10,000 per day - Intention to deceive
- \$ 25,000 per day - Violate air quality limits
- \$ 100,000 per day - Harms an individual

Reference: <http://www.aqmd.gov/legal/enfauth.html>



First Rule Challenge

- **A California based lubricant company challenged Rule 1144 and introduced California Senate Bill SB 1127**
- **SB 1127 would have exempted “consumer products” from regulation under Rule 1144**
- **SB 1127 was defeated on April 16, 2012 by a vote of two yes votes and four no votes**
- **Therefore Rule 1144 continues as written**



Thank You

Contact Information

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