

FROM THE RESEARCH &  
DEVELOPMENT LABORATORIES  
OF MOMAR, INC.

# CONCENTRATED Orange-2-O TECHNICAL DATA REPORT



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## Description and Features:

**A blend of the best cleaners Mother Nature has to offer!**

**Natural Citrus Solvents** penetrate and remove oils and greases.

**Active Oxygen** provides color-safe bleaching and deodorizing.

**Biodegradable Detergents** suspend and remove soils and stains.

All three cleaning agents work as a team to clean without producing harsh fumes that are associated with aggressive acid cleaners. The synergy of these ingredients allows Orange-2-O to be used at much greater dilution rates than other conventional cleaners without sacrificing cleaning power. Because less chemical is used, Orange-2-O effectively reduces the toxicity of a cleaning system and minimizes the amount of residue. Orange-2-O Concentrate has a neutral pH, contains no chlorine, no phosphates, and no butyl solvents -- making Orange-2-O versatile enough to be safe on most surfaces. Meets U.S.D.A. A-1 Guidelines.



## Applications:

**The Total Facility Cleaner:** Orange-2-O is versatile enough to fill all cleaning needs in Kitchens, Offices, Hotels, Restrooms, Locker Rooms, Restaurants, Cafeterias, Schools, Health Clubs, Nursing Homes, Hospitals, Resorts, and Countless Other Facilities.

**Removes:** Tea, Wine, Urine, Blood, Grime, Coffee, Liquor, Ketchup, Cosmetics, Chocolate, Mildew, Iodine, Crayon, Betadine, Vomit, Pet Stains, Shoe Polish, Food Stains, Fruit Juices, Latex Paint, Grass Stains, Oil, Grease, Washable Ink, and Many Other Soils.

**For Use On:** Rugs, Clothing, Linens, Fabrics, Towels, Carpeting, Uniforms, Upholstery, Draperies, Plastic, Metal, Mirrors, Glass, Tile, Grout, and a Variety of Other Surfaces.

*There are virtually hundreds of uses!!! For more applications and directions for Orange-2-O, please consult the product label or your Momar representative.*

## Specifications:

pH @ 25°C (ASTM-E-70) .....	4.0 - 7.0
Density @ 25°C (ASTM-D-287) .....	0.990 - 1.000 g/ml
Percent Solids (140°C for 40 min.) .....	25 - 30%
U.S.D.A. approval .....	Meets A-1 guidelines
Solubility .....	Completely soluble with water
Detergency / Rinsability .....	Excellent / Excellent
Storage / Stability .....	6 months at room temperature
Color (visual) .....	None
Appearance @ 25°C (visual) .....	Clear, viscous liquid
Foam Height .....	Low
Odor .....	Citrus
Health / Flammability / Reactivity .....	1 / 2 / 1
Personal Protection .....	B - Safety glasses and gloves
Freeze / Thaw Stability .....	Keep from freezing

## Dilution Rates:

LIGHT DUTY APPLICATIONS - Dilute 1:100  
MEDIUM DUTY APPLICATIONS - Dilute 1:30  
HEAVY DUTY APPLICATIONS - Dilute 1:10  
ULTRA-HEAVY DUTY APPLICATIONS - Dilute 1:3



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# **THE STORY BEHIND ORANGE-2-O**

About a year ago, DARRYL JONES had the idea to take a concentrated product like C-Cide and combine it with the power of Oxygen. Darryl felt that the combination of these two technologies would amount to a **“TOTAL FACILITY CLEANER.”**

We agreed, so we started formulating. The trick was going to be figuring out how to stabilize oxygen, a gas, into a liquid product. Hydrogen peroxide, when mixed with other chemicals, naturally decomposes and releases oxygen gas.

We spent several months figuring out how to prevent this decomposition. Once we discovered how to stabilize the hydrogen peroxide, Orange-2-O was born and that is what makes Orange-2-O so unique -- it contains stabilized active oxygen with a shelf life of over 6 months. The stabilized active oxygen works synergistically to boost the other ingredients in the solution...**TALK ABOUT TEAMWORK.**

- The **citrus solvents** break up soils, dissolve greases and oils, and aid in deodorizing.
- The **biodegradable detergents** aid the cleaning process by suspending soils while allowing the citrus emulsion to be diluted with water.
- The **active oxygen**, provided by the hydrogen peroxide, provides color-safe bleaching, aids in soil penetration, neutralizes odor causing sources, and facilitates residue-free rinsing action.



# **THE TRUE TEST OF ORANGE-2-O**

After we completed the formulation and development of ORANGE-2-O, we sent some samples to DARRYL JONES to test. He immediately commented on the appearance of the product, complementing the fragrance and heavy viscosity.

He also said, *“I tried Orange-2-O at a variety of dilution ratios on an assortment of soiled surfaces and found it to work very, very well.”*

**BEFORE**

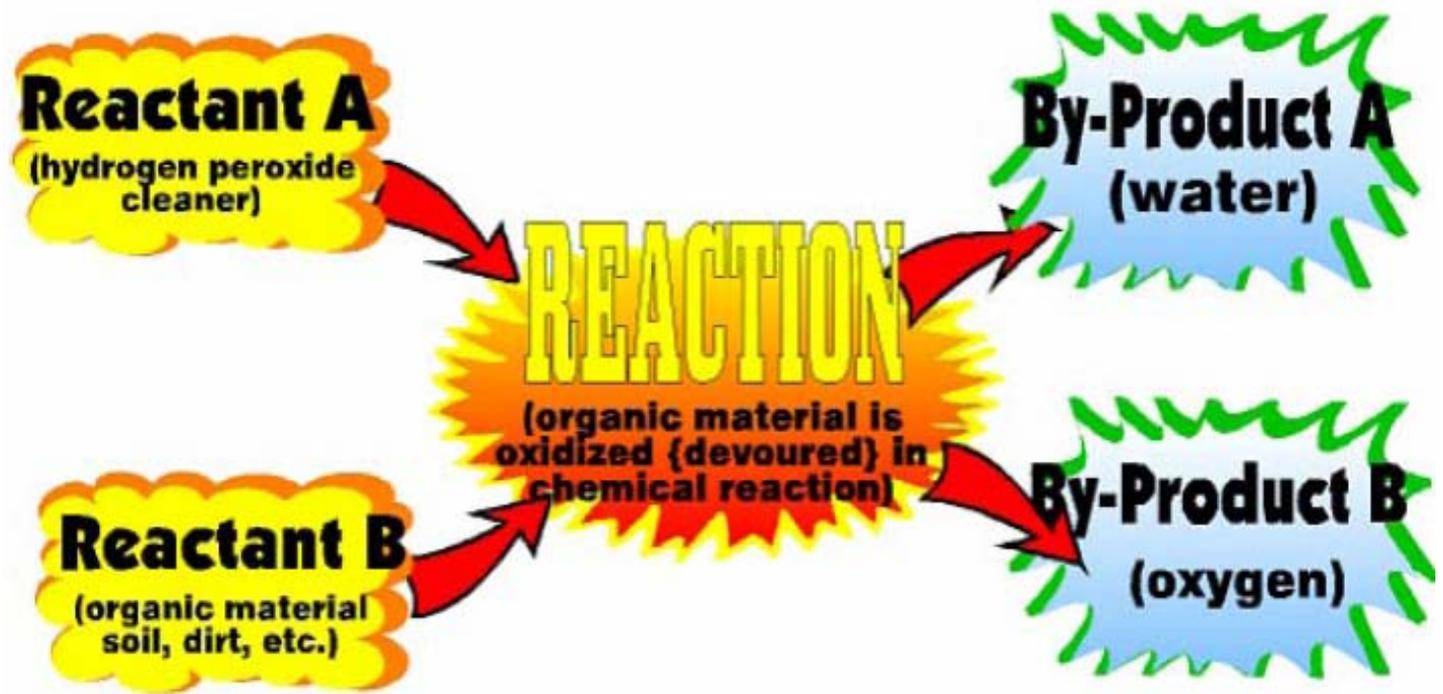
**AFTER**



He went on to say *“As a mildew remover in showers and as a spotter on carpet, I’ve never used a product that worked better. Orange-2-O breaks up and bleaches out stubborn stains while providing a wonderful citrus fragrance...something that no acid or chlorine based product can claim. I was even more impressed with how well the product and the soil rinsed away. Even though Orange-2-O created a lot of suds, it left the surface residue free.*

# THE REACTION OF ORANGE-2-O

To understand the power of Orange-2-O, first you have to understand the cleaning reaction. Like true teamwork, each ingredient plays its part in the cleaning reaction.



First, the naturally derived citrus solvents penetrate into greasy soils, carrying the detergents and active oxygen with them.

Second, when the active oxygen (Reactant A) contacts organic material, soil, dirt, etc. (Reactant B) a reaction occurs where the organic material is devoured and the only by-products are water and oxygen.

Third, the detergents carry any non-reacted residues away from the surface during the rinsing phase.

# THE SAFETY OF ORANGE-2-O

ENVIRONMENTALLY SAFE • PEOPLE SAFE  
SURFACE SAFE • COLOR SAFE



- All of the ingredients used in Orange-2-O are BIODEGRADABLE.
- Orange-2-O is LOWER IN TOXICITY than other conventional cleaners because it contains no chlorine, phosphates, butyl solvents, acids, caustics, alcohols, ammonias, quats, or dyes.
- The synergy of the ingredients in Orange-2-O allows it to be used at much greater dilution rates than other cleaning products. At greater dilution rates, less actual chemical is in solution doing the cleaning. Therefore, Orange-2-O is SAFER ON THE SURFACE, while minimizing the amount of chemical residue left behind. Orange-2-O also has a neutral pH so it can be used on all water-safe surfaces – even waxed floors when diluted at the Medium Duty dilution rate.
- Orange-2-O is an OPTICAL BRIGHTENER – it brightens colors and whitens whites. Unlike chlorine, Orange-2-O can distinguish between the soils and stains it bleaches and the surfaces that it brightens.
- Orange-2-O Concentrate has a flashpoint of 135°F, higher than most citrus cleaners. Orange-2-O Ready-to-Use and other use-solutions of Orange-2-O have NO FLASHPOINT.
- Orange-2-O meets the U.S.D.A. A-1 guidelines for use in food processing facilities.

